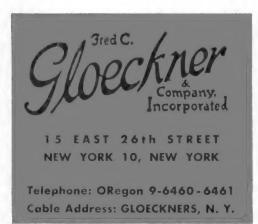




CHRYSANTHEMUM MANUAL





TERMS OF SALE

Fifty rooted cuttings of each variety is the minimum that can be supplied. More than 50 of a variety must be in multiples of 50.

Any changes or cancellation of chrysanthemum orders must be received at least 30 days before shipping date. Every effort is being made to deliver stock which is free from pests, but purchases must be made with the understanding that we assume no responsibility for losses which may result from same. To facilitate deliveries, cuttings will be shipped on Monday and Tuesday of each week. However, we will gladly make shipment on Friday or Saturday, if specifically requested and provided the order is received one month prior to the requested shipping date.

WARRANTY AND LIMITATON OF LIABILITY: Subject to the limitations of liability herein set forth, we warrant that the seeds, plants or bulbs sold are as described on the container, within recognized tolerances. Our liability on this warranty is limited in amount to the purchase price of the seeds, plants or bulbs. In no event shall we be liable for the crop, or for any loss due to the failure, impairment or quality thereof or varietal variance therein, whether such loss results from breach of the foregoing warranty, from breach of any other provision of the buyer's contract for purchase of said seeds, plants or bulbs, or from any other

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

OUR TWENTY-FIFTH YEAR

In marking the anniversary of our first 25 years in business, one cannot help but reflect on the far-flung changes that have taken place during that period in the methods of operation of our Customers, the growers. Twenty-five years ago, growers were beginning to realize the value of research in production methods. In the intervening years the results of research have included bombs and numerous potent materials for pest control; manipulation of day-length and temperature for year-round flowering of cut and pot chrysanthemums; automatic watering and injection fertilizing; air conditioning, misting, etc., to name but a few.

Conspicuous crop changes were made during the same period. Green plants came into their own as a standard household item. Year-round pot mums and azaleas boomed. Most conspicuous of the many cut flower cropping changes were the development of the southern-grown gladiolus industry to make the glad a year-round commodity, and, of course, the development of year-round standard and pompon chrysanthemum production throughout the country.

During the past 25 years, we hope that we as a firm have contributed in a modest way at least to the progress and development of the flower business. In observing this anniversary it probably would not have been difficult to collect congratulatory letters from important industry figures, but to us it seems more pertinent to merely rededicate ourselves to providing new and more effective services during the next 25 years.

This anniversary does give us a special opportunity to wholeheartedly thank our Customers, the growers who have made possible the development of our business.

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Fred C. Gloecknet



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Year-Round Flowering of Chrysanthemum

For the past twelve years we have seen cut chrysanthemums on the markets every month of the year. To assure high quality cut flowers the plants must be grown under optimum conditions. By optimum conditions we refer particularly to the basic conditions of a good soil, the disease-free condition of the plant material, the absence of any checks in growth from stock plant to the mature flowering plant, adequate means of temperature control for all stages of growth and the selection of the right varieties out of each group for the respective flowering periods. It is with this in mind that we prepare this Manual.

tesponse Group

Prior to year-round flowering of chrysanthemums, we

referred to varieties as to their natural flowering date. Now that year-round flowering is in general use, we refer to a variety as to its response to short-day treatment. When we say 9 week response, we mean that it will bloom 9 weeks after the short-day treatment is started. A 13-week group requires 13 weeks after short-day treatment is started, and so on with all the other response groups.

Daylength Control

When chrysanthemums are grown around the year, it is very necessary that we know when to apply shade or light to make the plants respond as we desire. The following schedule will give you the proper dates for lighting and shading for each response group.

YEAR-ROUND LIGHTING AND SHADING SCHEDULE

Response Group	Shading to Stop in Fall	Lighting to Start in Fall	Shading to Start in Spring	Lighting to Stop in Spring
7 week	Aug. 24	July 13	Apr. 13	June 1
8 week	Aug. 31	July 20	Apr. 6	May 25
9 week	Sept. 7	July 27	Mar. 30	May 18
10 week	Sept. 14	Aug. 3	Mar. 23	May 11
11 week	Sept. 21	Aug. 10	Mar. 16	May 4
12 week	Sept. 28	Aug. 17	Mar. 9	Apr. 27
13 week	Oct. 5	Aug. 24	Mar. 2	Apr. 20
14 week	Oct. 12	Aug. 31	Feb. 23	Apr. 13

Lighting

The chrysanthemum is generally referred to as a short day plant but it is rightfully a long night plant. It requires a long night period of at least twelve hours or more to bud and flower properly. When we want to prevent bud initiation we should reduce the night period to at least seven hours. This is done by lighting the plants three to four hours each night, starting at 10 p.m.

To prevent the initiation of flower buds, the light intensity must not be lower than 7 foot-candles. When growing seven or eight week varieties this minimum should be 9 foot-candles.

**Usually we figure that it requires 11/4 watts per sq. ft. of area covered; that includes benches and walks. When lighting a single bench 42 inches to 48 inches

wide use 60-watt lamps in a reflector, spaced 4 feet apart, 2 to 3 feet above the tops of the plants. For two benches 42 to 48 inches wide use 100-watt lamps in a reflector, spaced 6 feet apart, 2 to 3 feet above the tops of the plants.

Lights must be used according to the schedule above. It has been found that best results are secured by interrupting the night. Begin lighting at 10 p.m. for the number of hours shown below:

ADDITIONAL LIGHTING SCHEDULE

- 3 Hours during the months of August, September, October, March, April and May.
- 4 Hours during the months of November, December, January and February.

Year-Round Flowering of Chrysanthemums

Shading

Use a good durable **Black Cloth** which when applied will reduce the light intensity to 2 foot-candles or less. More light intensity than this will result in delayed flowering and unevenness of bloom.

The cloth should be applied at 5 p.m. and removed at 8 a.m. When the temperature is above 90 degrees at 5 p.m. delay the application of the cloth until 6 or 7 p.m. This will reduce the heat under the cloth and yet produce twelve hours or more of night necessary for proper development. Continue covering each evening on pompons until the latest buds show color and most of the flowers are well developed. For large flowering varieties, shading can be discontinued after all flowering buds have attained the diameter of approximately one-half inch.

Be sure that covering is complete on all benches shaded, as any leaks in light will cause uneven spots in the bench at blooming time.

Black cloth should be applied each evening. Missing one night a week will give fair results, but delayed flowering results when cloth is not applied each evening.

Temperature Control

For inter-connected units or crops at different stages of development the most efficient and effective temperature recommendations we can make are cool 60° crops. The house temperature is run at a straight 60° level night and day, cloudy or sunny. This is the lowest, safest minimum. It is the night temperature that counts. Eliminating fluctuation promotes steady, gradual growth. Keeping day temperatures down encourages more ventilation with corresponding reduction in relative humidity. This promotes stronger, heavier stems. On very bright days temperatures will frequently go

higher but this should be due to radiant heat from the sun rather than convective greenhouse heat.

Excessive high temperatures prohibit the bud development, and during seasons of 90 degree night temperatures, it is suggested that the black cloth be raised after twilight and lowered again in the morning before daylight. This cooler temperature hastens the development of the buds. Air conditioning greenhouses has made it possible to grow chrysanthemums in locations where natural high temperatures prohibited the development of this crop.

Selection and Varieties

The careful selection of varieties in year-round flowering is very important. An intimate knowledge of varieties will eliminate the pitfalls associated with this crop. Knowing how to select varieties on the basis of response groups is equally as important as selecting varieties that will respond out of season.

In latitudes where seasons, temperature and light conditions are variable, it is to any grower's advantage that he grow only those varieties that will provide the highest yields and best quality for each period of the

The South is of course more fortunate in that light duration there and intensity fluctuates less than is experienced in the North, and even though only three or four response groups are used during a 52-week period, the need for meticulous varietal planning is just as important as it is for any one period in the North.

Your Gloeckner representative is well equipped to furnish you the details and the proper varieties for each particular flowering date. His intimate knowledge will eliminate the guess work associated with mum programming.



Well Grown Year-Round Crops - Note lights and black cloth

Year-Round Flowering of Chrysanthemums

INTERRUPTED LIGHTING FOR WINTER STANDARDS

When flowering December thru March crops of the standard varieties Indianapolis, Queen's and Mefo's the use of interrupted lighting has been tested and is recommended as a means of increasing petallage. This materially improves the appearance of the flower reducing the effect of decreased petallage and quilling known to be associated with abrupt shade during the short days of the winter period.

The essential requirements are:

- 1. Units planted to only the above mentioned varieties. The procedure has not been thoroughly tested on spray varieties or other standard varieties.
- 2. Accurate control of temperature. A 60° minimum night at all positions within the unit plus correspondingly higher day temperatures. Cloudy days were run at the 60° minimum. Bright days were between 65°-70°.
- 3. A rigid adherence to scheduled timing recommendations with interruption.
- 4. No extreme temperature reduction at or near the finish of the crop. Low temperature is known to be partly responsible for an increase of quilling in the Indianapolis varieties. A minimum of 55° is satisfactory only after buds show some color.

5. The method recommended is as follows:

For any given crop to be flowered during the December through March period determine from the schedule the date lights are stopped. Count back twelve (12) days and on this date start and maintain nine (9) continuous short days of no lights. At the end of this nine (9) short day period run twelve (12) continuous days of lights on. Then turn lights out and maintain normal short days.

Thus the total number of long days as called for by the schedule remains the same. This second long day period immediately following the first short day period of nine (9) days serves to slow down the early bud development stage resulting in a petallage increase of approximately 50%.

To illustrate: For flowering Indianapolis White (10 week) for December 14 the schedule calls for October 6 lights out. Counting back twelve (12) days gives September 23. Therefore run short days from September 23 to and including October 1 (9 continuous short days). Starting October 2, run twelve (12) long days to and including October 13. On October 14 start the final and continuous short day period. This is the nine (9) short day—twelve (12) long day formula for interrupted lighting.

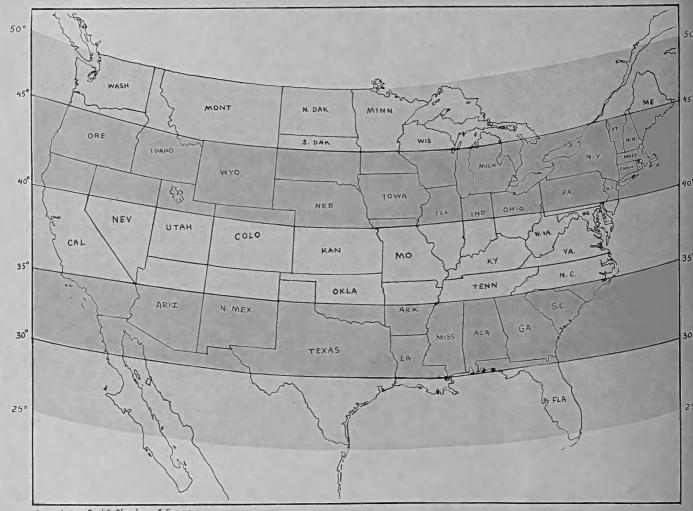


Well Grown House of Indianapolis For January Bloom



Supporting Standards with Wires and Cross Strings

Year-Round Flowering of Chrysanthemums



Copyright 1951 Fred C. Gloeckner & Co. INC



Standards in Saran House Protected with Polyethylene after Color Developed

THE MAP ABOVE WILL ASSIST YOU IN LOCATING THE LATITUDE IN WHICH YOUR GREEN-HOUSE IS LOCATED. YOU NEED THIS INFORMATION TO USE THE FLOWERING SCHEDULES THAT FOLLOW ON THE NEXT PAGES.

BLOOM JANUARY 4, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
	The same of the sa		Aug. 31-Sept. 28 Aug. 24-Oct. 5	no	14 Week
40-50°	Aug. 17	Sept. 7	Aug. 17—Oct. 12	no	13 Week
			Aug. 17-Oct. 19	no	12 Week
			Aug. 17-Oct. 26	no	11 Week 10 Week
				110	10 Week
			Aug. 31-Sept. 28	no	14 Week
35-40°	Aug. 24	Sept. 14	Aug. 24-Oct. 5	no	13 Week
33 40			Aug. 24-Oct. 12	no	12 Week
			Aug. 24-Oct. 19	no	11 Week
			Aug. 24—Oct. 26	no	10 Week
00.000			Aug. 31-Oct. 5	no	13 Week
30-35°	Aug. 31	Sept. 21	Aug. 31-Oct. 12	no	12 Week
		1	Aug. 31-Oct. 19	no	11 Week
	/ Commence of the commence of		Aug. 31—Oct. 26	no	10 Week
25-30°	Sept. 7		Sept. 7 -Oct. 12	no	12 Week
20-00	Jepi. /	Sept. 28	Sept. 7 -Oct. 19	no	11 Week
			Sept. 7 Oct. 26	no	10 Week

	1/2	14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Chaitanooga December Glory Wh. Peter John	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Meto
	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowstorm Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitefop Iceberg Illini Igloo Shasta Stardust
	S			Yel. Chat'n'ga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo
YELLOW	P	Ill. Brighteyes Yel. Riviera Sun Valley	Coronation Gold Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
BRONZE	S			Oak Leaf Br. Peter John	Valentine Calvert's Or'ge	Ind. Bronze Copper Queen
& RED	P	Br. Alvoda Topaz Ill. Homespun	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
	S			Pink Peter John	Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen
PINK	P	Alvoda Dark Alvoda Riviera Rosalind	Eminence Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skies Celebrity	Portrait Profile Bonnie

BLOOM JANUARY 11, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Aug. 31-Oct. 5	no	14 Week
			Aug. 24-Oct. 12	no	13 Week
40-50°	Aug. 17	Sept. 7	Aug. 17-Oct. 19	no	12 Week
			Aug. 17-Oct. 26	no	11 Week
			Aug. 17-Nov. 2	no	10 Week
-			Aug. 31-Oct. 5	по	14 Week
		Sept. 14	Aug. 24-Oct. 12	no	13 Week
35-40°	Aug. 24		Aug. 24-Oct. 19	no	12 Week
			Aug. 24-Oct. 26	no	11 Week
			Aug. 24-Nov. 2	no	10 Week
			Aug. 31-Oct. 12	no	13 Week
30-35°	Aug. 31	Sept. 21	Aug. 31-Oct. 19	no	12 Week
30-33	Aug. 51	3epi. 21	Aug. 31-Oct. 26	no	11 Week
			Aug. 31-Nov. 2	no	10 Week
			Sept. 14-Oct. 19	no	12 Week
25-30°	Sept. 14	Oct. 5	Sept. 14-Oct. 26	no	11 Week
			Sept. 14-Nov. 2	no	10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
	S			Chattanooga December Glory Wh. Peter John	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Meto
WHITE	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowstorm Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
	S			Yel. Chattanooga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo
YELLOW	P	Ill. Brighteyes Yel. Riviera Sun Valley	Coronation Gold Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldriff	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
BRONZE	S	,		Oak Leaf Br. Peter John	Valentine Calvert's Or'ge	Ind. Bronze Copper Queen
& RED	P	Br. Alvoda Topaz III. Homesp'n	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
	S			Pink Peter John	Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen
PINK	P	Alvoda Dark Alvoda Riviera Rosalind	Eminence Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skies Celebrity	Portrait Profile Bonnie

BLOOM JANUARY 18, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Aug. 24	Sept. 14	Aug. 31—Oct. 12 Aug. 24—Oct. 19 Aug. 24—Oct. 26 Aug. 24—Nov. 2 Aug. 24—Nov. 9	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Aug. 31	Sept. 21	Aug. 31—Oct. 12 Aug. 31—Oct. 19 Aug. 31—Oct. 26 Aug. 31—Nov. 2 Aug. 31—Nov. 9	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 7	Sept. 28	Sept. 7 —Oct. 19 Sept. 7 —Oct. 26 Sept. 7 —Nov. 2 Sept. 7 —Nov. 9	no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 21	Oct. 12	Sept. 21—Oct. 26 Sept. 21—Nov. 2 Sept. 21—Nov. 9	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

1000	2.0	14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Chattanooga December Glory Wh. Peter John	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo
	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowstorm Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
YELLOW	S			Yel. Chattanooga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Meto Cream Meto
	P	Ill. Brighteyes Yel. Riviera Sun Valley	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
BRONZE	S			Oak Leaf Br. Peter John	Valentine Calvert's Or'ge	Ind. Bronze Copper Queen
& RED	P	Br. Alvoda Topaz Ill. Homespun	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
PINK	S	-		Pink Peter John	Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen
FAMAL	P	Alvoda Dark Alvoda Riviera Rosalind	Eminence Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skies Celebrity	Portrait Profile Bonnie

BLOOM JANUARY 25, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Aug. 31	Sept. 21	Aug. 31—Oct. 19 Aug. 31—Oct. 26 Aug. 31—Nov. 2	no no	14 Week 13 Week 12 Week
			Aug. 31-Nov. 9 Aug. 31-Nov. 16	no no	11 Week 10 Week
35-40°	Sept. 7	Sept. 28	Sept. 7 —Oct. 19 Sept. 7 —Oct. 26 Sept. 7 —Nov. 2 Sept. 7 —Nov. 9 Sept. 7 —Nov. 16	no no no no no	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Sept. 14	Oct. 5	Sept. 14—Oct. 26 Sept. 14—Nov. 2 Sept. 14—Nov. 9 Sept. 14—Nov. 16	no no no	13 Week 12 Week 11 Week 10 Week
25-30°	Sept. 21	Oct. 12	Sept. 21—Nov. 2 Sept. 21—Nov. 9 Sept. 21—Nov. 16	no no no	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

-		14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	S			Chattanooga December Glory	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo
	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowsform Illini Alba Northwind Safellife Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
YELLOW	s			Yel. Chaffanooga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Mefo Cream Mefo
	P	Ill. Brighteyes Yel. Riviera	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloc Heyday
BRONZE	S			Oak Leaf	Valentine Calvert's Gold	Ind. Bronze Copper Queen
& RED	P	Br. Alvoda Topaz III. Homespun	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
PINK	S				Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen
	P	Alvoda Dark Alvoda Riviera Rosalind	Eminence Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skies Celebrity	Portrait Profile Bonnie

BLOOM FEBRUARY 1, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Aug. 31-Oct. 26	по	14 Week
10. 500			Aug. 31-Nov. 2	no	13 Week
40-50°	Aug. 31	Sept. 21	Aug. 31-Nov. 9	no	12 Week
			Aug. 31-Nov. 16	no	11 Week
	. (Aug. 31-Nov. 23	no	10 Weel
	1		Sept. 7 -Nov. 2	no	13 Weel
35-40°	Sept. 7	Sept. 28	Sept. 7 -Nov. 9	no	12 Weel
	ocpi.	3epi. 20	Sept. 7 -Nov. 16	no	11 Week
			Sept. 7 -Nov. 23	no	10 Week
			Sept. 21-Nov. 2	no	13 Weel
30-35°	Sept. 21	Oct. 12	Sept. 21-Nov. 9	no	12 Week
	; oop., 21	OCI. 12	Sept. 21-Nov. 16	no	11 Week
	1		Sept. 21-Nov. 23	no	10 Week
0= 000	,		Sept. 28-Nov. 9	no	12 Week
25-30°	Sept. 28	Oct. 19	Sept. 28-Nov. 16	по	11 Week
			Sept. 28-Nov. 23	no	10 Week

For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week	
WHITE	s			Chattanooga December Glory	Markefeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo	
	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowstorm Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust	
YELLOW	S			Yel. Chattanooga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Meto Cream Meto	
	P	Ill. Brighteyes Yel. Riviera	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	
BRONZE	S			Oak Leaf	Valentine Calvert's Gold	Ind. Bronze Copper Queen	
& RED	P	Br. Alvoda Topaz Ill. Homespun	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax	
PINK	S				Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen	
	P	Alvoda Dark Alvoda Riviera Rosalind	Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skies Celebrity	Portrait Profile Bonnie	



Year-Round Chrysanthemum Flowering Schedule

BLOOM FEBRUARY 8, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Sept. 7 -Nov. 2	по	14 Week
			Sept. 7 -Nov. 9	no	13 Week
40-50°	Sept. 7	Sept. 28	Sept. 7 -Nov. 16	no	12 Week
	Sepi. /	ocpi. 20	Sept. 7 -Nov. 23	no	11 Week
			Sept. 7 -Nov. 30	no	10 Week
			Sept. 14-Nov. 9	no	13 Week
35-40°	Sept. 14	Oct. 5	Sept. 14-Nov. 16	no	12 Week
35-40			Sept. 14-Nov. 23	no	11 Week
			Sept. 14-Nov. 30	no	10 Week
			Sept. 28-Nov. 9	no	13 Week
30-35°	00 4 2	0.1 10	Sept. 28-Nov. 16	no	12 Week
30-35	Sept. 28	Oct. 19	Sept. 28-Nov. 23	no	11 Week
			Sept. 28-Nov. 30	no	10 Week
25-30°	Oct. 5	0-4 26	Oct. 5 -Nov. 23	по	11 Week
25-50	Oct. 5	Oct. 26	Oct. 5 -Nov. 30	no	10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

APPLIATED IN SILVERIA UPODIE

		14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	s		Maria di State	Chaffanooga December Glory	Marketeer	Imp. Ind. White Ind. No. 3 Whit Crystal Queen Melo
WHITE	P	Silversmith Snowcap Wh. Riviera	Icecap Acclaim Snowsform Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
TELLOW	s			Yel Chattanooga Golden Pearson Yellow Glory	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Melo Cream Melo
TELLOW	P	Ill. Brighteyes Tel. Riviera	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
BRONZE	S			Oak Leaf	Valentine Calvert's Gold	Ind. Bronze Copper Queen
& RED	P	Br. Alvoda Topaz III. Homespun	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
	S				Thanks. Pink Ed Seldewitz	Ind. Pink Orchid Queen
PINK	P	Alvoda Dark Alvoda Riviera Rosalind	Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Vedova Staccato Blue Skles Celebrity	Portrait Profile Bonnie

BLOOM FEBRUARY 15, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Sept. 14	Oct. 5	Sept. 14—Nov. 16 Sept. 14—Nov. 23 Sept. 14—Nov. 30 Sept. 14—Dec. 7	no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 21	Oct. 12	Sept. 21—Nov. 16 Sept. 21—Nov. 23 Sept. 21—Nov. 30 Sept. 21—Dec. 7	no no no	13 Week 12 Week 11 Week 10 Week
30-35°	Oct. 5	Oct. 26	Oct. 5 —Nov. 23 Oct. 5 —Nov. 30 Oct. 5 —Dec. 7	no no no	12 Week 11 Week 10 Week
25-30°	Oct. 12	Nov. 2	Oct. 12-Nov. 30 Oct. 12-Dec. 7	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		13 Week	12 Week	11 Week	10 Week
WHITE	S		Chattanooga	Markeleer	Imp. Ind. White Ind. No. 3 White Crystal Queen Meto
WHITE	P	Icecap Acclaim Snowsform Illini Alba Northwind Satellite Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasla Stardust
YELLOW	s		Yel. Chattanooga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo
	P	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
navan	S		Oak Leaf	Valentine Calvert's Orange	Ind. Bronze Copper Queen
& RED	P	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
PINK	S				Ind. Pink Orchid Queen
	P	Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Staccato Blue Skies	Portrait Profile Bonnie

S-Standard

P-Pompon



Year-Round Chrysanthemum Flowering Schedule

BLOOM FEBRUARY 22, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Sept. 21	Oct. 12	Sept. 21—Nov. 23 Sept. 21—Nov. 30 Sept. 21—Dec. 7 Sept. 21—Dec. 14	no no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Sept. 28	Oct. 19	Sept. 28—Nov. 30 Sept. 28—Dec. 7 Sept. 28—Dec. 14	no no no	12 Week 11 Week 10 Week
30-35°	Oct. 12	Nov. 2	Oct. 12—Nov. 30 Oct. 12—Dec. 7 Oct. 12—Dec. 14	no no no	12 Week 11 Week 10 Week
25-30°	Oct. 19	Nov. 9	Oct. 19—Dec. 7 Oct. 19—Dec. 14	no no	11 Week 10 Week

		13 Week	12 Week	11 Week	10 Week
WHITE	S		Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Meto
WHITE	P	Icecap Acclaim Snowsform Illini Alba Northwind Satellife Snowcrest		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
YELLOW	S		Yel. Chattanooga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Meio Cream Meio
	P	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
BRONZE	S		Oak Leaf	Valentine Calvert's Orange	Ind. Bronze Copper Queen
& RED	P	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
PINK	S				Ind. Pink Orchid Queen
	P	Pirk Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Staccato Blue Skies	Portrait Profile Bonnie

BLOOM FEBRUARY 29, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Sept. 28	Oct. 19	Sept. 28—Nov. 30 Sept. 28—Dec. 7 Sept. 28—Dec. 14 Sept. 28—Dec. 21	no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Oct. 12	Nov. 2	Oct. 12—Dec. 7 Oct. 12—Dec. 14 Oct. 12—Dec. 21	no no no	12 Week 11 Week 10 Week
30-35°	Oct. 19	Nov. 9	Oct. 19—Dec. 7 Oct. 19—Dec. 14 Oct. 19—Dec. 21	no no no	12 Week 11 Week 10 Week
25-30°	Oct. 26	Nov. 16	Oct. 26—Dec. 14 Oct. 26—Dec. 21	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		13 Week	12 Week	11 Week	10 Week
WHITE	S		Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo
	P	Icecap Snowstorm Illini Alba Northwind Satellite Snowcrest Acclaim		Jupiter Surfside Sculpture Belray	Whitetop Iceberg Illini Igloo Shasta Stardust
YELLOW	S		Yel. Chaffanooga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo
	P	Coronation Golden Acclaim Cinderella Spungold Corsair Yellow Snowcrest	Omega Yellow Galaxy	Yel. Sculpture Souvenir Esquire Shane Illini Goldrift	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	S		Oak Leaf	Valentine Calvert's Orange	Ind. Bronze Copper Queen
BRONZE & RED	P	Christmas Star	Galaxy Holiday Crackerjack	Br. Jubilation Thelma	Beauregard Br. Portrait Climax
PINK	S				Ind. Pink Orchid Queen
	P	Pink Snowdrop Debutante Prom	Legend Delmar Empress	Rhythm Staccato Bue Skies	Portrait Profile Bonnie

S-Standard

P-Pompon



Year-Round Chrysanthemum Flowering Schedule

BLOOM MARCH 7, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Oct. 5	Oct. 26	Oct. 5 —Dec. 7 Oct. 5 —Dec. 14 Oct. 5 —Dec. 21 Oct. 5 —Dec. 28	no no no no	13 Week 12 Week 11 Week 10 Week
35-40°	Oct. 19	Nov. 9	Oct. 19—Dec. 14 Oct. 19—Dec. 21 Oct. 19—Dec. 28	no no no	12 Week 11 Week 10 Week
30-35°	Oct. 26	Nov. 16	Oct. 26—Dec. 14 Oct. 26—Dec. 21 Oct. 26—Dec. 28	no no no	12 Week 11 Week 10 Week
25-30°	Nov. 2	Nov. 23	Nov. 2 —Dec. 21 Nov. 2 —Dec. 28	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

SARIETIES IN AESPONSE GROUPS

		13 Week	12 Week	11 Week	10 Week
WHITE	s		Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo
WHITE	P	Icecap Acclaim Snowsform Illini Alba Yukon Satellite Snowcrest	Champ Illini Glacier	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Shasta Stardust
	S		D. Yel Chat'n'ga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo
YELLOW	P	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Illini Wampum Omega Yellow Galaxy	Yel. Sculpture Yel. Taffeta Esquire Gold Ball Shane Illini Goldrift Efude Lollipop Pippin Golden Para.	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	S		Oak Leaf	Valentine Calvert's Orange	Ind. Bronze Copper Queen
BRONZE & RED	P		Galaxy Holiday Crackerjack	Valentine Br. Jubilation Thelma Beauregard Sup.	Beauregard Br. Portrait
	S				Ind. Pink Orchid Queen
PINK	P	Pink Snowdrop Debutante Prom	Legend Delmar Heritage	Jubilation Rhythm Staccato Blue Skies	Portrait Profile Bonnie

S-Standard

P-Pompon

BLOOM MARCH 14, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Oct. 12	Nov. 2	Oct. 12—Dec. 21 Oct. 12—Dec. 28 Oct. 12—Jan. 4	no no no	12 Week 11 Week 10 Week
35-40°	Oct. 26	Nov. 16	Oct. 26—Dec. 21 Oct. 26—Dec. 28 Oct. 26—Jan. 4	no no no	12 Week 11 Week 10 Week
30-35°	Nov. 2	Nov. 23	Nov. 2 —Dec. 28 Nov. 2 —Jan. 4	no no	11 Week 10 Week
25-30°	Nov. 16	Dec. 7	Nov. 16—Dec. 28 Nov. 16—Jan. 4	no no	11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

		13 Week	12 Week	11 Week	10 Week
WHITE	s		Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo
WHITE	P	Icecap Acclaim Snowsform Illini Alba Yukon Satellite Snowcrest	Champ Illini Glacier	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Shasta Stardust
VELLOW	S		D. Yel. Chaf'a'ga	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Mefo Cream Mefo
RELLOW	P	Coronation Golden Acclaim Cinderella Spungold Corsair Yel. Snowcrest	Illini Wampum Omega Yellow Galaxy	Yel. Sculpture Yel. Taffeta Esquire Gold Ball Shane Illini Goldrift Etude Lollipop Pippin Gol. Paramount	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	S		Oak Leaf	Valentine Calvert's Or'ge	Ind. Bronze Copper Queen
& RED	P		Galaxy Holiday Crackerjack	Valentine Br. Jubilation Thelma Beauregard Sup.	Beauregard Br. Portrait
	S				Ind. Pink Orchid Queen
PINK	P	Pink Snowdrop Debutante Prom	Legend Delmar Heritage	Jubilation Rhythm Staccato Blue Skies	Portrait Profile Bonnie



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Year-Round Chrysanthemum Flowering Schedule

BLOOM MARCH 21, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Oct. 19	Nov. 9	Oct. 19—Dec. 28 Oct. 19—Jan. 4 Oct. 19—Jan. 11	no no no	12 Week 11 Week 10 Week
35-40°	Nov. 2	Nov. 23	Nov. 2 —Jan. 4 Nov. 2 —Jan. 11	no no	11 Week 10 Week
30-35°	Nov. 9	Nov. 30	Nov. 9 —Jan. 4 Nov. 9 —Jan. 11	no no	11 Week 10 Week
25-30°	Nov. 23	Dec. 14	Nov. 23—Jan. 4 Nov. 23—Jan. 11	no no	11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		12. Week	11 Week	10 Week	9 Week
	S	Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo Fred Shoesmith	Queen's Lace
WHITE	P	Champ Illini Glacier	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Shasta Stardust	
YELLOW	s	Dk. Yel. Chat'n'ga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo Yel. Shoesmith	Luyona Gold Lace Yellow Lace
ILLOW	P	Illini Wampum Omega Yellow Galaxy	Yellow Sculpture Yellow Taffeta Esquire Gold Ball Shane Illini Goldriff Etude Lollipop Pippin Gol. Paramount	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	
BRONZE	S	Oak Leaf	Valentine Calvert's Gold	Ind. Bronze Copper Queen	Mrs. Palmero Bronze Palmero
k RED	P	Galaxy Holiday Crackerjack	Valentine Br. Jubilation Thelma Beauregard Supr.	Beauregard Br. Portrait	
PINK	S			Ind. Pink Orchid Queen Pink F. Shoes'th	
FANN	P	Legend Delmar Heritage	Jubilation Rhythm Staccato Blue Skies	Portrait Profile Bonnie	





Year-Round Chrysanthemum Flowering Schedule

BLOOM MARCH 28, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Nov. 2	Nov. 23	Nov. 2 —Jan. 11 Nov. 2 —Jan. 18	no no	11 Week 10 Week
35-40°	Nov. 9	Nov. 30	Nov. 9 —Jan. 11 Nov. 9 —Jan. 18	no no	11 Week 10 Week
30-35°	Nov. 23	Dec. 14	Nov. 23—Jan. 11 Nov. 23—Jan. 18	no no	11 Week 10 Week
25-30°	Nov. 30	Dec. 21	Nov. 30—Jan. 18 Nov. 30—Jan. 25 Nov. 30—Feb. 1	no no no	10 Week 9 Week 8 Week

BONDIETYES:		

		12 Week	11 Week	10 Week	9 Week
	S	Chattanooga	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo Fred Shoesmith	Queen's Lace
WHITE	P	Champ Illini Glacier	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Shasta Stardust	
	S	Dk. Yel. Chat'n'ga	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo Yel. Shoesmith	Luyona Gold Lace Yellow Lace
KETTOM	P	Illini Wampum Omega Yellow Galaxy	Yellow Sculpture Yellow Taffeta Esquire Gold Ball Shane Illini Goldrift Etude Lollipop Pippin Golden Param't	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	
, ~	S	Oak Leaf	Valentine Calvert's Gold	Ind. Bronze Copper Queen	Mrs. Palmero Bronze Palmero
BRONZE & RED	P	Galaxy Holiday Crackerjack	Valentine Br. Jubilation Thelma Beauregard Supr.	Beauregard Br. Portrait	
	s			Ind. Pink Orchid Queen Pink F. Shoesmith	
PINK	P	Legend Delmar Heritage	Jubilation Rhythm Staccato Blue Skies	Portrait Profile Bonnie	



Year-Round Chrysanthemum Flomering Schedule

BLOOM APRIL 4, 1960

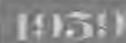
LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-45°	Nov. 9	Nov. 30	Nov. 9 —Jan. 18 Nov. 9 —Jan. 25	no no	11 Week 10 Week
35-40°	Nov. 16	Dec. 7	Nov. 16—Jan. 18 Nov. 16—Jan. 25	no no	11 Week 10 Week
30-35°	Nov. 30	Dec. 21	Nov. 30—Jan. 18 Nov. 30—Jan. 25 Nov. 30—Feb. 1	no no no	11 Week 10 Week 9 Week
25-30°	Dec. 7	Dec. 28	Dec. 7 —Jan. 25 Dec. 7 —Feb. 1 Dec. 7 —Feb. 8	no no no	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		11 Week	10 Week	9 Week
WHITE	S	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo Fred Shoesmith	Queen's Lace
	P	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Viscount Shasta Stardust	White Keepsake Alaska
ELLOW	S	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Melo Cream Mefo Yel. Shoesmith	Luyona Gold Lace Yellow Lace
ILLIOW	P	Yellow Sculpture Yellow Taffeta Esquire Gold Ball Shane Illini Goldrift Efude Lollipop Pippin Golden Param't	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	
RONZE	S	Valentine Calvert's Orange	Ind. Bronze Copper Queen	Mrs. Palmero Bronze Palmero
k RED	P	Beauregard Supr. Br. Jubilation Thelma Ranger	Beauregard Br. Portrait Nectarine Climax	Resolute Wagonwheels
PINK	S		Ind. Pink Orchid Queen Pink F. Shoes'th	Bunbu
AND SA	P	Jubilation Rhythm Staccato Blue Skies Celebrity	Delight Portrait Bonnie Pennant Linda Lou	



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Your Round Chrymnthemum Flowering Schedule

BLOOM APRIL 11, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Nov. 16	Dec. 14	Nov. 16—Jan. 25 Nov. 16—Feb. 1 Nov. 16—Feb. 8	Mar. 14 Mar. 21 Mar. 28	11 Week 10 Week 9 Week
35-40°	Nov. 30	Dec. 28	Nov. 30—Jan. 25 Nov. 30—Feb. 1 Nov. 30—Feb. 8	Mar. 14 Mar. 21 Mar. 28	11 Week 10 Week 9 Week
30-35°	Dec. 7	Jan. 4	Dec. 7 — Feb. 1 Dec. 7 — Feb. 8 Dec. 7 — Feb. 15	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
25-30°	Dec. 21	Jan. 11	Dec. 21—Feb. 1 Dec. 21—Feb. 8 Dec. 21—Feb. 15	Mar. 21 No No	10 Week 8 Week 9 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

		11 Week	10 Week	9 Week
	s	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo Fred Shoesmith	Queen's Lace
WHITE	P	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Viscount Shasta Stardust	White Keepsake Alaska
	S	Harvester	Imp. Ind. Yel. Explorer Yellow Queen Yellow Mefo Cream Mefo Yellow Shoes'th	Luyona Gold Lace Yellow Lace
YELLOW	P	Yel. Sculpture Yellow Taffeta Esquire Gold Ball Shane Illini Goldrift Efude Lollipop Pippin Gol. Paramount	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	
BRONZE	S	Valentine Calvert's Orange	Ind. Bronze Copper Queen	Mrs. Palmero Bronze Palmero
RED RED	P	Beauregard Supr. Br. Jubilation Thelma Ranger	Beauregard Br. Portrait Nectarine Climax	Resolute Wagonwheels
	S		Ind. Pink Orchid Queen Pink F. Shoes'th	Bunbu
PINK	P	Jubilation Rhythm Staccato Blue Skies Celebrity	Delight Portrait Bonnie Pennant Linda Lou	
_			S—Standard	P—Pompon



Year-Round Chrysunthemum Flowering Schooling

BLOOM APRIL 18, 1960

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Nov. 23	Dec. 21	Nov. 23—Feb. 1 Nov. 23—Feb. 8 Nov. 23—Feb. 15	Mar. 14 Mar. 21 Mar. 28	11 Week 10 Week 9 Week
35-40°	Dec. 7	Jan. 4	Dec. 7 —Feb. 1 Dec. 7 —Feb. 8 Dec. 7 —Feb. 15	Mar. 14 Mar. 21 Mar. 28	11 Week 10 Week 9 Week
30-35°	Dec. 14	Jan. 11	Dec. 14—Feb. 8 Dec. 14—Feb. 15 Dec. 14—Feb. 22	Mar. 21 Mar. 28 No	10 Week 9 Week 8 Week
25-30°	Dec. 28	Jan. 18	Dec. 28—Feb. 8 Dec. 28—Feb. 15 Dec. 28—Feb. 22	Mar. 21 Mar. 28 No	10 Week 9 Week 8 Week

VARIETIES IN RESPONSE CROT	-		-		CT TO		100	DI C	201	P.C	10	THE			17.1	RII	A	-77	
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****		11 Week	10 Week	9 Week
WHITE	S	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo Fred Shoesmith	Queen's Lace
	P	White Taffeta Sculpture Ermine Jupiter Surfside Paramount Belray	Whitetop Tiptop Iceberg Illini Igloo Viscount Shasta Stardust	White Keepsake Alaska Silver Cloud Halo
YELLOW	S	Harvester	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo Yellow Shoesmith	Luyona Gold Lace Yellow Lace
	P	Yel. Sculpture Yellow Taffeta Esquire Gold Ball Shane Illini Goldrift Etude Lollipop Pippin Gol. Paramount	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday	Gold Coast Golden Herald Starbright Starlight
BONZE	S	Valentine Calvert's Gold	Dark Ind. Br. Copper Queen	Mrs. Palmero Bronze Palmero
RED	P	Beauregard Supr. Br. Jubilation Thelma Ranger	Beauregard Bronze Portrait Jetfire Climax	Resolute Wagonwheels Bronzechip Peach Chip
PENCIC	S		Ind. Pink Orchid Queen Pink F. Shoes'th	Bunbu Mary Garden
-164	P	Jubilation Rhythm Staccato Blue Skies Celebrity	Delight Portrait Bonnie Pennant Linda Lou	Bluechip Handsome





Year-Round Chrysanthamum Flowering Schedule

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LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Dec. 7	Jan. 4	Dec. 7 — Feb. 15 Dec. 7 — Feb. 22 Dec. 7 — Feb. 29	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
35-40°	Dec. 14	Jan. 11	Dec. 14—Feb. 15 Dec. 14—Feb. 22 Dec. 14—Feb. 29	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
30-35°	Dec. 21	Jan. 18	Dec. 21—Feb. 15 Dec. 21—Feb. 22 Dec. 21—Feb. 29	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
25-30°	Jan. 4	Jan. 25	Jan. 4 — Feb. 15 Jan. 4 — Feb. 22 Jan. 4 — Feb. 29	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week

TENTERTES.	37.50.07	PESPONSE	GROUPS

		10 Week	9 Week	8 Week
	s	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo Fred Shoesmith	Queen's Lace Marblehead Wh. Mary G'den	Wh. Pink Chief Silver Sheen
WHITE	P	Ping Pong Supr. Whitetop Iceberg Chalk Cliff Pacesetter Illini Igloo Viscount Shasta Stardust Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Memento Silver Cloud Halo Alaska Thistledown	Echo Blizzard Pristine Silvertone
YELLOW	S	Imp. Ind. Yellow Explorer Yellow Queen Yellow Mefo Cream Mefo Yellow Shoes'th	Luyona Gold Lace Yellow Lace	Blazing Gold
	P	Goldtop Aztec Mary Hall Golden Bantam Yel. Beauregard Goldberg Sunfire Yellow Shasta Yellow Igloo Heyday Yel. Ill. Snowdrift Fanfare	Goldfinch Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Dandy Statesman Brilliancy Honeymoon	Yellow Calumet Topflight Yel. Silvertone
	S	Dark Ind. Bronze Nomago Copper Queen	Mrs. Palmero Br. Palmero	Mayford Titan
BRONZE & RED	P	Nectarine Beauregard Wizard Climax Amberhue	Resolute Gaiety Sybil Peachchip Wagonwheels	Calumet Dark Calumet Red Enterprise Talisman Paradise
	S	Ind. Pink Dk. Orchid Queen Pink F. Shoes'th Vanguard	Bunbu Mary Garden	Pink Chief
PINK	P	Delight Portrait Bonnie Pennant Linda Lou	Pinkette Vogue Bluechip Handsome Tempo	Mayfair Enterprise Accolade Mirth



Year-Round Chrysanthemum Flowering Sthedule

		BLOOM N	IAY 2, 1960		
LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Dec. 14	Jan. 11	Dec. 14—Feb. 22 Dec. 14—Feb. 29 Dec. 14—Mar. 7	Mar. 21 Mar. 28 Apr. 4	9 Week 8 Week
35-40°	Dec. 21	Jan. 18	Dec. 21—Feb. 22 Dec. 21—Feb. 29 Dec. 21—Mar. 7	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
25-35°	Jan. 11	Feb. 1	Jan. 11—Feb. 22 Jan. 11—Feb. 29 Jan. 11—Mar. 7	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
		BLOOM M	IAY 9, 1960		
40-50°	Dec. 28	Jan. 25	Dec. 28—Feb. 29 Dec. 28—Mar. 7 Dec. 28—Mar. 14	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
35-40°	Jan. 4	Feb. 1	Jan. 4 —Feb. 29 Jan. 4 —Mar. 7 Jan. 4 —Mar. 14	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week
25-35°	Jan. 18	Feb. 8	Jan. 18—Feb. 29 Jan. 18—Mar. 7 Jan. 18—Mar. 14	Mar. 21 Mar. 28 Apr. 4	10 Week 9 Week 8 Week

		10 Week	9 Week	8 Week
TATELY TO E	s	Imp. Ind. White Ind. No. 3 White Crystal Queen Melo Fred Shoesmith	Queen's Lace Marblehead Wh. Mary Garden	Wh. Pink Chief Silver Sheen
WHITE	P	Ping Pong Supr. Whitetop Iceberg Chalk Cliff Pacesefter Illini Igloo Viscount Shasta Stardust Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Memento Silver Cloud Halo Alaska Thistledown	Echo Blizzard Pristine Silverione
YELLOW	s	Imp. Ind. Yel. Explorer Yellow Queen Yellow Mefo Cream Mefo Yellow Shoes'th	Luyona Gold Lace Yellow Lace	Blazing Gold
ILLEOW	P	Goldtop Aziec Mary Hall Golden Bantam Yel. Beauregard Goldberg Sunfire Yellow Shasta Yellow Igloo Heyday Yel. Ill. Snowdrift Fanfare	Goldfinch Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Dandy Statesman Brilliancy Honeymoon	Yellow Calumet Topflight Yel. Silvertone
BRONZE	S	Dk. Ind. Bronze Nomago Copper Queen	Mrs. Palmero Bronze Palmero	Mayford Titan
& RED	P	Nectarine Beauregard Wizard Climax Amberhue	Resolute Gaiety Sybil Peachchip Wagonwheels	Calumet Dark Calumet Red Enterprise Talisman Paradise
PINK	S	Ind. Pink Dk. Orc'd Queen Pink F. Shoes'th Vanguard	Bunbu Mary Garden	Pink Chief
- AMEN	P	Delight Portrait Bonnie Pennant Linda Lou	Pinkeffe Vogue Bluechip Handsome Tempo	Mayfair Enferprise Accolade Mirth



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Year-Round Chrysanthemum Flowering Schedule

BLOOM MAY 18, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Jan. 5	Feb. 2	Jan. 5 —Mar. 9 Jan. 5 —Mar. 16 Jan. 5 —Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
35-40°	Jan. 12	Feb. 9	Jan. 12—Mar. 9 Jan. 12—Mar. 16 Jan. 12—Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
25-35°	Jan. 26	Feb. 16	Jan. 26—Mar. 9 Jan. 26—Mar. 16 Jan. 26—Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
		BLOOM M	AY 25, 1959		
40-50°	Jan. 19	Feb. 16	Jan. 19—Mar. 16 Jan. 19—Mar. 23 Jan. 19—Mar. 30	Mar. 23 Mar. 28 Apr. 6	10 Week 9 Week 8 Week
25-40°	Feb. 2	Feb. 23	Feb. 2 —Mar. 16 Feb. 2 —Mar. 23 Feb. 2 —Mar. 30	Mar. 23 Mar. 28 Apr. 6	10 Week 9 Week 8 Week

*For No Pinch Method: Plant and Light on Pinch Date

		10 Week	9 Week	8 Week
	S	Imp. Ind. White Crystal Queen Meto Fred Shoesmith	Queen's Lace Marblehead Wh. Mary Garden	Wh. Pink Chief Silver Sheen
VHITE	P	Whitetop Iceberg Chalk Cliff Pacesetter Illini Igloo Shasta Stardfust Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Memento Halo Alaska Thistledown	Echo Blizzard Pristine Silvertone
	S	Imp. Ind. Yellow Yellow Queen Yellow Mefo Cream Mefo Yellow Shoes'th	Luyona Gold Lace Yellow Lace Yel. Marblehead	Blazing Gold Bufferball
YELLOW	P	Yellowtop Aztec Mary Hall Yel. Beauregard Yel. Iceberg Sunfire Yellow Shasta Yellow Igloo Heyday Yel. Ill. Snowdrift Fanfare	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Dandy Statesman Brilliancy Honeymoon	Yellow Calumet Topflight
	S	Dk. Ind. Bronze Nomago Copper Queen		
& RED	P	Nectarine Beauregard Giltglow Climax Amberhue	Resolute Gaiety Sybil Peachchip Wagonwheels	Calumet Dark Calumet Red Enterprise Talisman Paradise
PINK	S	Ind. Pink Dk. Orc'd Queen	Bunbu Mary Garden	
	P	Delight Portrait Bonnie Pennant Linda Lou	Pinkette Vogue Bluechip Handsome Tempo	Mayfair Enterprise Mirth



Year-Round Chrysanthenium Flowering Schedule

		BLOOM J	UNE 1, 1959		
LATITUDE	PLANT	* PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Feb. 2	Mar. 2	Feb. 2 —Mar. 23 Feb. 2 —Mar. 30 Feb. 2 —Apr. 6	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
25-40°	Feb. 9	Mar. 2	Feb. 9 —Mar. 23 Feb. 9 —Mar. 30 Feb. 9 —Apr. 6	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
		BLOOM J	UNE 8, 1959		
25-50°	Feb. 16	Mar. 9	Feb. 16—Mar. 30 Feb. 16—Apr. 6 Feb. 16—Apr. 13	Mar. 30 Apr. 6 Apr. 13	10 Week 9 Week 8 Week
		BLOOM JU	UNE 15, 1959		
25-50°	Feb. 23	Mar. 16	Feb. 23—Apr. 6 Feb. 23—Apr. 13 Feb. 23—Apr. 20	Apr. 6 Apr. 13 Apr. 20	10 Week 9 Week 8 Week

200		10 Week	9 Week	8 Week
WHITE	S	Imp. Ind. White Crystal Queen	Queen's Lace Marblehead Wh. Mary Garden	Wh. Pink Chief Silver Sheen
	P	Whitetop Iceberg Chalk Cliff Pacesetter Illini Igloo Shasta Stardust Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Memento Halo Alaska Thistledown	Echo Blizzard Pristine Silvertone
YELLOW	S	Imp. Ind. Yellow Yellow Queen	Luyona Gold Lace Yellow Lace Yel. Marblehead	Blazing Gold Bufferball
	P	Yellowtop Aztec Mary Hall Yel. Beauregard Yel. Iceberg Sunfire Yel. Shasta Yel. Igloo Heyday Yel. Ill. Snowdrift Fanfare	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Dandy Statesman Brilliancy Honeymoon	Yellow Calume Topflight
BRONZE	S	Dk. Ind. Bronze Nomago Copper Queen		
& RED	P	Nectarine Beauregard Giltglow Climax Amberhue	Resolute Gaiety Sybil Peachchip Wagonwheels	Calumet Dark Calumet Red Enterprise Talisman Paradise
PINK	S	Ind. Pink Dk. Orc'd Queen	Bunbu Mary Garden	- aranist
	P	Delight Portrait Bonnie Pennant Linda Lou	Pinkette Vogue Bluechip Handsome Tempo	Mayfair Enterprise Mirth



10 Week

Laughter

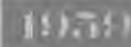
Profile

Pennant Cheerful

PINK

Giant Betsy Ross

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Year-Haund Chrysanthemum Flowering Schedule

BLOOM JUNE 22, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE 'GROUP
25-50°	Mar. 2	Mar. 23	Mar. 2 —Apr. 13 Mar. 2 —Apr. 20 Mar. 2 —Apr. 27	Apr. 13 Apr. 20 Apr. 27	10 Week 9 Week 8 Week
		BLOOM JU	JNE 29, 1959		
25-50°	Mar. 9	Mar. 30	Mar. 9 — Apr. 20 Mar. 9 — Apr. 27 Mar. 9 — May 4	Apr. 20 Apr. 27 May 4	10 Week 9 Week 8 Week
		BLOOM J	ULY 6, 1959		
25-50 °	Mar. 16	Apr. 6	Mar. 16—Apr. 27 Mar. 16—May 4 Mar. 16—May 11	Apr. 27 May 4 May 11	10 Week 9 Week 8 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

WARRETTES IN RESPONSE GROUPS

Marblehead

Wh. Pink Chief

9 Week

Sentinel Queen's Lace Silver Sheen Whirlwind Themesong Wh. Mary Garden WHITE Whitetop Popcorn Echo White Popcorn Crystallite Tiptop Blizzard Feathertop Pristine Iceberg Silvertone Keepsake Madonna Pinocchio Illini Igloo Vesta Shasta Memento Stardust Halo Illini Snowdrift Alaska Thistledown **Yellow Betsy Ross** Yel. Marblehead **Blazing Gold** Luyona Bufferball S Yellow Lace **Good News** Yel. Ivanhoe YELLOW Yellowiop Starlight **Yellow Calumet Mary Hall Golden Herald** Topflight Crescendo Happiness Yel. Beauregard Sunup Yel. Iceberg Sauterne Sunfire Gondola Luxury Yellow Shasta Dandy Brilliancy Yellow Igloo Yel, Ill, Snowd'ft Statesman Honeymoon Fred Yule BRONZE & RED Beauregard Resolute Calumet Butterscotch Paxon **Dark Calumet**

Sybil

Bunbu

Pinkette

Bluechip

Reward Tempo

Mirth



Year-Round Chrysanthemum Flowering Schedule

BLOOM JULY 13, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
25-50°	Mar. 23	Apr. 13	Mar. 23—May 4 Mar. 23—May 11 Mar. 23—May 18	May 4 May 11 May 18	10 Week 9 Week 8 Week
		BLOOM J	ULY 20, 1959		
25-50°	Mar. 30	Apr. 20	Mar. 30—May 4 Mar. 30—May. 11 Mar. 30—May 18	May 11 May 18 May 25	10 Week 9 Week 8 Week
		BLOOM JU	ULY 27, 1959		
25-50°	Apr. 6	Apr. 27	Apr. 6 —May 4 Apr. 6 —May 11 Apr. 6 —May 18	May 18 May 25 June 1	10 Week 9 Week 8 Week

UNDITERE	F 20	gate of the state of the same	48.0	the state of the same of
		.m. 62 (12)	1200	100000000000000000000000000000000000000

		10 Week	9 Week	8 Week
VATER VALUE	s	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Themesong Wh. Mary Garden	Wh. Pink Chief Silver Sheen
WHITE P	P	Whitetop Tiptop Feathertop Iceberg Madonna Illini Igloo Shasta Stardust Illini Snowdrift	Popcorn White Popcorn Crystallite Keepsake Pinocchio Vesta Memento Halo Alaska Thistledown	Echo Blizzard Pristine Silverione
S FELLOW P	s	Yellow Befsy Ross	Yel. Marblehead Luyona Yellow Lace Good News Yellow Ivanhoe	Blazing Gold Bufferball
	P	Yellowfop Mary Hall Crescendo Yel. Beauregard Yel. Iceberg Sunfire Luxury Yellow Shasta Yellow Igloo Yel. Ill. Snowdrift	Starlight Golden Herald Happiness Sunup Sauterne Gondola Dandy Brilliancy Statesman Honeymoon	Yellow Calume Topflight
			Fred Yule	
BRONZE & RED	P	Beauregard Bufferscotch	Resolute Paxon Sybil	
T	S	Laughter Vanguard	Bunbu	
PINK	P	Profile Pennant Cheerful	Pinkette Bluechip Reward Tempo	Mirth



Year-Round Chrysanthemun Flowering Schedule

		BLOOM AU	GUST 3, 1959		
LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
25-50°	Apr. 13	May 4	Apr. 13—May 4 Apr. 13—May 11 Apr. 13—May 18	May 25 June 1 June 8	10 Week 9 Week 8 Week
		BLOOM AU	GUST 10, 1959		
25-5 0°	Apr. 20	May 11	Apr. 20—May 4 Apr. 20—May 11 Apr. 20—May 18	June 1 June 8 June 15	10 Week 9 Week 8 Week
		BLOOM AU	GUST 17, 1959		
25-50 °	Apr. 27	May 18	Apr. 27—May 4 Apr. 27—May 11 Apr. 27—May 18	June 8 June 15 June 22	10 Week 9 Week 8 Week
		*For No Pinch Method:	Plant and Light on Pinch Date		

		10 Week	9 Week	8 Week
	s	Giant Betsy Ross Sentinel Whirlwind	Marblehead Queen's Lace Themesong White Mary Garden	Wh. Pink Chief Silver Sheen
WHITE	P	Whitetop Tiptop Feathertop Iceberg Madonna Illini Igloo Shasta Stardust Illini Snowdrift Viscount	Popcorn White Popcorn Crystallite Keepsake Pinocchio Vesta Memento Halo Alaska Thistledown	Echo Blizzard Pristine Silvertone
	S	Yellow Betsy Ross Yellow Marvel Golden Favourite	Yellow Marblehead Luyona Yellow Lace Good News Yellow Ivanhoe Mecca	Blazing Gold Bufferball
P	P	Yellowfop Mary Hall Crescendo Yel. Beauregard Yel. Iceberg Sunfire Luxury Yellow Shasta Yellow Igloo Yel. Illini Snowdrift	Starlight Golden Herald Happiness Sunup Sauterne Gondola Dandy Brilliancy Statesman Honeymoon	Topflight Yellow Silvertone
	S		Fred Yule Mrs. Palmero Bronze Palmero	
BRONZE & RED	P	Beauregard Butterscotch Wizard	Resolute Paxon Sybil	
PINK	S	Laughter Vanguard	Bunbu	
	P	Profile Pennant Cheerful	Pinkette Bluechip Reward Tempo	Mirth



Year-Round Chrysanthenum Howermy Schedule

BLOOM	AUGUST	24, 1959
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LATITUDE	PLANT	PINCH*	START SHADE	RESPONSE GROUP
25-50°	May 4	May 25	June 15 June 22 June 29	10 Week 9 Week 8 Week
	BLOOM	AUGUST 31, 1959		
25-50°	May 11	June 1	June 22 June 29 July 6	10 Week 9 Week 8 Week
	BLOOM S	SEPTEMBER 7, 195	59	
25-50°	May 18	June 8	June 29 July 6 July 13	10 Week 9 Week 8 Week

*For No Pinch Method: Plant on Pinch Date

		10 Week	9 Week	8 Week	
TAILUY NY	s	Giant Betsy Ross Sentinel	Marblehead Queen's Lace Themesong White Mary Garden	Wh. Pink Chief Silver Sheen	
WHITE	P	Ping Pong Whitetop Supreme Whitetop Iceberg Madonna Illini Igloo Shasta Stardust Viscount Illini Snowdrift	Popcorn White Popcorn Crystallite White Keepsake Pinocchio Songster Vesta Memento Alaska Thistledown	Echo Blizzard Pristine Silvertone	
YELLOW	s	Yellow Betsy Ross Yellow Marvel Golden Favourite Explorer	Luyona Yellow Lace Good News Mecca	Blazing Gold Butterball	
	P	Goldtop Crescendo Yel. Beauregard Golden Bantam Goldberg Sunfire Yellow Shasta Yellow Igloo Heyday Yel. Illini Snowdrift	Starlight Golden Herald Happiness Sunup Sauterne Gondola Dandy Brilliancy Statesman Honeymoon	Topflight Yellow Silvertone	
nnavar	S	Nomago	Mrs. Palmero Bronze Palmero Fred Yule		
BRONZE & RED	P	Dillion Beauregard Butterscotch Wizard	Resolute Paxon Sybil Bronzechip		
PINK	s	Vanguard Laughter	Bunbu		
	P	Profile Pennant	Pinkeffe Reward Bluechip Gail Tempo	Mirth	



					EM	WEEL	191	Datatic
			LOOM SE	PTEMBER	R 14,	1959	STAR	T RESPON
LATIT	UDE		PLANT	PINCH*			SHAD	
25-5	0°	1	May 25	June 1	5	Jt	uly 6 uly 13 uly 2	9 We
		B	LOOM SE	PTEMBE	R 21,	1959		
25-5	0°		June 1	June 2	2	Ju	uly 6 uly 1 uly 20	3 10 We
		В	LOOM SE	PTEMBE	R 28,	1959		
25 -5	50°	-	June 1	June 2		;ز بار	uly 1 uly 2 uly 2	0 10 We
			*For No Pine	ch Method: Plant o	on Pinch Do	ite		
		₩	7.46 6 2 9 4 3	HE STREET		IO A N.E.		
		11 Week	10 Week	J. TATL:4-	9 Week	Queen		8 Week Wh. Pink Ch
s	5		Ind. No	d. White . 3 White etsy Ross	Theme Albaire Queen	song		Silver Sheen
WHITE		White Taffeta Sculpture Ermine Jupiter Highbrow Paramount	Iceberg Madon Illini Ig Shasta Stardus Viscous	p Whitetop na gloo	Crysta	Popcorn llife Keepsake hio er		Echo Blizzard Pristine Silvertone
:	S		Explore	Marvel	Luyon Mecca Gold L Good I	ace		Blazing Gold Butterball
ELLOW	P	Souvenir Yellow Taffeta Yel. Sculpture Golden Chord Esquire Forty Niner Gold Ball Illini Goldilocks Shane Etude Yellow Highbro Lollipop Pippin Klondike Illini Sunspot Sultan	Goldtoj Aztec Crescer Golden Yel. Be: Goldbe Sunfire Luxury Yellow Jealow W Heyday Yellow Yel. Pa Yel. Til.	ndo Bantam auregard rg Shasta sy Igloo cesefter Snowdrift	Goldfii Starlig	nch ht ht Herald oast ness ne la Halo man		
		Golden Paramo Mrs. Eisenhower		**************************************	Mrs I	Palmero	-	_
	S	Beacon	Nomag	Queen	Bronze	Palmero t News	а	
BRONZE RED	P	Beauregard Sup Thelma Ranger Olnura Bronze Minuet Rubaiyat	Beaure Rubico Nectari Samov Wizard Climax	n ine ar i Pandora	Resolu Gaiety Paxon Bronz Bucks Wagos Sybil Peach Red D	e Doi kin nwheels chip		
	S		Ind. Pi Vangu Dk. Ord Laughi	ard :hid Queen	Bunbt Mary	Garden	I	Pink Chief
PINK	P	Taffeta Jubilation Illini Springtim Almega Minuet Blue Skies Illini Formal	Parisie Deligh	nne t if nt nger	Pinker Rose Rewar Pink I Blueck Darko Handa Tempe	Gaiety d lot nip hip ome		Accolade Mirth



Year-Round Chrysanthemum Flowering Schedule

	BLOOM	OCTOBER 5, 1959		
LATITUDE	PLANT	PINCH*	START SHADE	RESPONSE GROUP
40-50°	June 8	June 29	July 20 July 27 Aug. 3	11 Weel 10 Weel 9 Weel
25-40°	June 15	July 6	July 20 July 27 Aug. 3	11 Weel 10 Weel 9 Weel
	BLOOM (OCTOBER 12, 1959		
40-50°	June 15	July 6	July 27 Aug. 3 Aug. 10	11 Wee 10 Wee 9 Wee
25-40°	June 22	July 13	July 27 Aug. 3 Aug. 10	11 Wee 10 Wee 9 Wee

*For No Pinch Method: Plant on Pinch Date

		11 Week	10 Week	9 Week
	s		Imp. Ind. White Ind. No. 3 White Giant Betsy Ross Meto	Silver Queen Themesong Albatross Queen's Lace Marblehead
/HITE	P	White Taffeta Sculpture Ermine Jupiter Highbrow Paramount Belray	Ping Pong Whitetop Supreme Whitetop Madonna Illini Igloo Chalk Cliff Shasta Stardust Viscount Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Vesta Memento Alaska Thistledown Halo
	s		Imp. Ind. Yellow Explorer Yellow Marvel Yellow Queen Cream Meio	Luyona Mecca Gold Lace Good News
YELLOW	P	Souvenir Yellow Taffeta Yel. Sculpfure Golden Chord Esquire Forty Niner Gold Ball Shane Etude Yellow Highbrow Lollipop Klondike Illini Sunspot Sulfan Golden Paramount	Goldtop Aztec Golden Bantam Yel. Beauregard Goldberg Sunfire Luxury Yellow Shasta Jealousy Heyday Yellow Igloo Yel. Pacesetter Yel. Ill. Snowdrift Fanfare	Goldfinch Starlight Golden Herald Gold Coast Happiness Sunup Sauferne Gondola Yellow Halo Dandy Statesman Brilliancy Starbright Honeymoon
BRONZE	s	Mrs. Eisenhower Valentine Beacon	Ind. Bronze Nomago Copper Queen Mrs. Roy	Mrs. Palmero Bronze Palmero Detroit News Fred Yule
& RED		Beauregard Supr. Br. Jubilation Thelma Ranger	Jetfire Beauregard Rubicon Nectarine	Resolute Gaiety Paxon Bronze Dot
	P	Ambercon Illini War Paint Olnura Bronze Minuet Rubaiyat	Samovar Wizard Climax Bronze Pandora Giliglow	Buckskin Wagonwheels Sybil Peachchip Red Daisy
PINK	S		Ind. Pink Vanguard Dk. Orchid Queen Laughter	Bunbu Mary Garden
ring	P	Taffeta Jubilation Illini Springtime Almega Minuet Blue Skies Illini Formal	Parisienne Delight Portraif Profile Bonnie Pennant Scintillation Cheerful	Pinkeffe Rose Gaiefy Reward Pink Dof Bluechip Darkchip Handsome Tempo



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Ysar-Round Chrysanthemum Flowering Schedule

	BLOOM (CTOBER 19, 195		
LATITUDE	PLANT	PINCH*	START SHADE	GROU
40-50°	June 15	July 6		10 We 9 We
25-40°	June 29	July 20		11 We 10 We 9 We
	BLOOM (OCTOBER 26, 195	59	
40-50°	June 22	July 13		11 We 10 We 9 We
25-40°	July 6	July 27		11 We 10 We 9 We
7 F	*For No Pir	ch Method: Plant on Pinch Date		
	VARIETIES	IN RESPONSE GRO	UPS	
	11 Week	10 Week	9 Week	
	s	Imp. Ind. White Ind. No. 3 White Giant Betsy Ross Meto Fred Shoesmith	Silver Queen Themesong Albatross Queen's Lace Marblehead	
WHITE	White Taffeta Sculpture Ermine Jupiter Highbrow Paramount Belray	Ping Pong Whitetop Supreme Whitetop Illini Igloo Chalk Cliff Shasta Stardust Viscount Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Vesta Memento Alaska Thistledown Halo	
	Harvester S	Imp. Ind. Yellow Explorer Yellow Marvel Yellow Queen Cream Meto	Luyona Mecca Gold Lace Good News	
YELLOW	Souvenir Yellow Taffeta Yellow Sculpture Golden Chord Esquire Forty Niner Gold Ball Shane Etude Yellow Highbrow Lollipop Klondike Illini Sunspot Sultan Golden Paramount	Goldtop Aziec Golden Bantam Yellow Beauregard Goldberg Sunfire Luxury Yellow Shasta Jealousy Heyday Yellow Igloo Yellow Pacesetter Yel. Ill. Snowdrift Fanfare	Goldfinch Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Yellow Halo Dandy Statesman Brilliancy Starbright Honeymoon	
	Mrs. Eisennower Valentine Beacon	Ind. Bronze Nomago Copper Queen Mrs. Roy	Mrs. Palmero Bronze Palmero Detroit News Fred Yule	
BRONZE & RED	Beauregard Supr. Bronze Jubilation Thelma Ranger Ambercon Illini War Paint Olnura Bronze Minuet Rubaiyat	Jeffire Beauregard Rubicon Nectarine Samovar Wizard Climax Bronze Pandora Gilfglow	Resolute Gaiety Paxon Bronze Dot Buckskin Wagonwheels Sybil Peachchip Red Daisy	
	s	Ind. Pink Vanguard Dark Orchid Queen Laughter Pink F. Shoesmith	Bunbu Mary Garden	
PINK	TaHela Jubilation Illini Springtime Almega Minuet Blue Skies Illini Formal	Parisienne Delight Portrait Profile Bonnie Pennant Scintillation Cheerful	Pinkette Rose Gaiety Reward Pink Dot Bluechip Darkchip Handsome Tempo	



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BLOOM MAY 18, 1959

	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	Jan. 5	Feb. 2	Jan. 5 —Mar. 9 Jan. 5 —Mar. 16 Jan. 5 —Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
35-40°	Jan. 12	Feb. 9	Jan. 12—Mar. 9 Jan. 12—Mar. 16 Jan. 12—Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
25-35°	Jan. 26	Feb. 16	Jan. 26—Mar. 9 Jan. 26—Mar. 16 Jan. 26—Mar. 23	Mar. 23 Mar. 30 Apr. 6	10 Week 9 Week 8 Week
_		BLOOM M	AY 25, 1959		
40-50°	Jan. 19	Feb. 16	Jan. 19—Mar. 16 Jan. 19—Mar. 23 Jan. 19—Mar. 30	Mar. 23 Mar. 28 Apr. 6	10 Week 9 Week 8 Week
25-40°	Feb. 2	Feb. 23	Feb. 2 —Mar. 16 Feb. 2 —Mar. 23 Feb. 2 —Mar. 30	Mar. 23 Mar. 28 Apr. 6	10 Week 9 Week 8 Week

		10 Week	9 Week	8 Week
	s l	Imp. Ind. White Crystal Queen Meto Fred Shoesmith	Queen's Lace Marblehead Wh. Mary Garden	Wh. Pink Chief Silver Sheen
WHITE	P	Whitetop Iceberg Chalk Cliff Pacesefter Illini Igloo Shasta Stardfust Illini Snowdrift	White Popcorn Crystallite White Keepsake Pinocchio Memento Halo Alaska Thistledown	Eche Blizzard Pristine Silvertone
	S	Imp. Ind. Yellow Yellow Queen Yellow Mefo Cream Mefo Yellow Shoes'th	Luyona Gold Lace Yellow Lace Yel. Marblehead	Blazing Gold Bufferball
YELLOW	P	Yellowtop Aziec Mary Hall Yel. Beauregard Yel. Iceberg Sunfire Yellow Shasta Yellow Igloo Heyday Yel. Ill. Snowdrift Fanfare	Starlight Golden Herald Gold Coast Happiness Sunup Sauterne Gondola Dandy Statesman Brilliancy Honeymoon	Yellow Calumei Topflight
BRONZE	s	Dk. Ind. Bronze Nomago Copper Queen		
& RED	P	Nectarine Beauregard Giltglow Climax Amberhue	Resolute Gaiety Sybil Peachchip Wagonwheels	Calumet Dark Calumet Red Enterprise Tallsman Paradise
	S	Ind. Pink Dk. Orc'd Queen	Bunbu Mary Garden	
PINK	P	Delight Portrait Bonnie Pennant Linda Lou	Pinkesse Vogue Bluechip Handsome Tempo	Mayfair Enferprise Mirth



PINK

Legend Delmar Illini Roseglow

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			DOM: SHIP	mis
	BLOOM N	OVEMBER 9, 195	9	
LATITUDE	PLANT PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	June 29 July 20	None None Aug. 3 —Aug. 31	Aug. 17 Aug. 24 Aug. 31	12 Week 11 Week 10 Week
30-40°	July 6 July 2	None None Aug. 3 —Aug. 31	Aug. 17 Aug. 24 Aug. 31	12 Week 11 Week 10 Week
25-35 °	July 13 Aug. 3	None None Aug. 4 —Aug. 31	Aug. 17 Aug. 24 Aug. 31	12 Week 11 Week 10 Week
	*For No Pinch Me	thod: Plant and Light on Pinch D	ate	
		S. August San	14.	
	12 Week	11 Week	10 Week	
	White Peter John Chattanooga S	Marketeer	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo Fred Shoesmith	
WHITE	White Princess Silvercrest Illini Peace p Champ Fortune Illini Glacier	White Taffeta Sculpture Ermine Jupiter Highbrow Surfside Paramount Belray Carrara	Ping Pong Supreme Whitetop Illini Igloo Chalk Cliff Shasta Stardust Viscount Illini Snowdrift Liftle America	
	Yellow Peter John {	Lorraine Harvester	Imp. Ind. Yellow Explorer Yellow Marvel Yellow Queen Cream Mefo Golden Shoesmith	
YELLOW	Goldsmith Highlander Illini Wampum Yellow Fortune Omega Yellow Galaxy	Souvenir Yellow Sculpture Golden Chord Esquire Forty Niner Gold Ball Shane Etude Yellow Highbrow Lollipop Klondike Illini Sunspot Sultan Golden Paramount	Goldtop Aztec Golden Banfam Yellow Beauregard Goldberg Sunfire Luxury Yellow Shasta Jealousy Heyday Yellow Igloo Yellow Pacesetter Yel. Ill. Snowdrift Fanfare	
BRONZE	Bronze Peter John	Balcombe Perfection Calvert's Gold Valentine Beacon	Ind. Bronze Nomago Copper Queen Mrs. Roy	7
& RED	Illini Redwood Bronze Goldsmith Galaxy P Crackerjack Red Empress	Beauregard Supr. Bronze Jubilation Thelma Ranger Ambercon Illini War Paint Olnura Bronze Minuet Rubaiyat	Jeffire Beauregard Rubicon Nectarine Samovar Wizard Climax Bronze Pandora Giltglow	
	Pink Peter John Dk. Pink Peter John S	Aristocraf Calvert's Pink Rose Delight Thanks. Pink	Ind. Pink Vanguard Orchid Queen Laughter Pink F. Shoesmith	

Taffeta
Jubilation
Illini Springtime
Almega
Minuet
Blue Skies
Illini Formal
Celebrity

Parisienne Delight Portrait Profile Bonnie Pennant Linda Lou Cheerful

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BLOOM NOVEMBER 16, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	July 6	July 27	None None None Aug. 3 —Sept. 7	Aug. 17 Aug. 24 Aug. 31 No	13 Week 12 Week 11 Week 10 Week
30-40°	July 13	Aug. 3	None None None Aug. 3 —Sept. 7	Aug. 17 Aug. 24 Aug. 31 No	13 Week 12 Week 11 Week 10 Week
25-30°	July 20	Aug. 10	None None Aug. 3 —Sept. 7	Aug. 24 Aug. 31 No	12 Week 11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

		13 Week	12 Week	11 Week	10 Week
WHITE	S		Chattanooga White Peter John	Marketeer Indiana Market	Imp. Ind. White Ind. No. 3 White Crystal Queen Mefo Fred Shoesmith
	P	Icecap Acclaim Illini Alba Satellite Dolomite	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray	Whitetop Iceberg Shasta Stardust Little America
S YELLOW P		Dk. Yel. Chat'n'ga Golden Pearson Yellow Peter John	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yellow Explorer Yellow Queen Cream Mefo Golden Shoesmith	
	P	Coronation Golden Acclaim Spungold Dk. Yel. Satellite Corsair	Highlander Illini Wampum Yellow Forfune Omega Yellow Galaxy	Esquire Forty Niner Etude Shane Yel. Highbrow Golden Param't	Goldtop Yel. Beauregard Goldberg Yel. Shasta Yellow Igloo Heyday
S BRONZE & RED P	S		Bronze Pefer John Oak Leaf	Balcombe Perfect. Calvert's Gold Valentine Beacon	Ind. Bronze Nomago Copper Queen Mrs. Roy
	P	Christmas Star Apricot Minstrel Flame Minstrel	Bronze Goldsmith Galaxy Holiday Crackerjack Indian Head	Thelma Ranger Rusticon Bronze Minuet Rubaiyat	Beauregard Jeffire Wizard Bronze Portrait Climax
PINK	S		Pink Peter John Dk. Pk. Peter John	Aristocrat Calvert's Pink Rose Delight Thanks. Pink	Ind. Pink Vanguard Orchid Queen Pink F. Shoesmith
	P	Eminence Debutante Minstrel Prom	Legend Delmar Illini Roseglow Valencia	Staccato Grand Slam Jubilation Blue Skies	Delight Portrait Pennant Cheerful
			S-Standard	P—Pompon	



BLOOM NOVEMBER 23, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50 °	July 13	Aug. 3	None None Aug. 10—Sept. 7 Aug. 3 —Sept. 14	Aug. 24 Aug. 31 No No	13 Week 12 Week 11 Week 10 Week
30-40°	July 20	Aug. 10	None None Aug. 10—Sept. 7 Aug. 3 —Sept. 14	Aug. 24 Aug. 31 No No	13 Week 12 Week 11 Week 10 Week
25-30°	July 27	Aug. 17	None Aug. 10—Sept. 7 Aug. 4 —Sept. 14	Aug. 31 No No	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

	13 Week	12 Week	11 Week	10 Week
	s	Chaitanooga White Peter John	Marketeer Indiana Market	Imp. Ind. White Ind. No. 3 White Crystal Queen Mafo Fred Shoesmith
WHITE	P Acclaim Illini Alba Satellite Dolomite	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray	Whitetop Iceberg Shasta Stardust Little America
	S	Dk. Yel. Chat'n'ga Golden Pearson Yellow Peter John	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yellow Explorer Yellow Queen Cream Mefo Golden Shoesmith
AEITOM	Coronation Golden Acclaim P Spungold Dk. Yel. Satellite Corsair	Highlander Illini Wampum Yellow Forfune Omega Yellow Galaxy	Esquire Forty Niner Etude Shane Yel. Highbrow Gol. Paramount	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	s	Br. Peter John Oak Leaf	Balcombe Perfect. Calvert's Gold Valentine Beacon	Ind. Bronze Nomago Copper Queen Mrs. Roy
BRONZE & RED	Christmas Star Apricot Minstrel p Flame Minstrel	Br. Goldsmith Galaxy Holiday Crackerjack Indian Head	Thelma Ranger Rusticon Bronze Minuet Rubaiyat	Beauregard Jetfire Wizard Br. Portrait Climax
m. rt. 1997	S	Pink Peter John Dk. Pk. Peter John	Aristocrat Calvert's Pink Rose Delight Thanks. Pink	Ind. Pink Vanguard Orchid Queen Pink F. Shoes'th
PINK	Eminence p Debutante Minstrel Prom	Legend Delmar Illini Roseglow Valencia	Staccato Grand Slam Jubilation Blue Skies	Delight Portrait Pennant Cheerful
		S—Standard	P-Pompon	



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Year-Round Chrysanthemum Flowering Schedule

BLOOM NOVEMBER 30, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	July 20	Aug. 10	None None Aug. 17—Sept. 7 Aug. 10—Sept. 14 Aug. 3—Sept. 21	Aug. 24 Aug. 31 No No No	14 Week 13 Week 12 Week 11 Week 10 Week
30-40°	July 27	Aug. 17	None None Aug. 17—Sept. 7 Aug. 10—Sept. 14 Aug. 3—Sept. 21	Aug. 24 Aug. 31 No No No	14 Week 13 Week 12 Week 11 Week 10 Week
25-30°	Aug. 3	Aug. 24	Aug. 17—Sept. 7 Aug. 10—Sept. 14 Aug. 3 —Sept. 21	No No No	12 Week 11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

VARIETIES IN RESPONSE GROUPS

		14 Week	13 Week	12 Week	11 Week	10 Week
WHITE	s		Smith's White Dec. White	Chaftanooga December Glory Marg'et Moeller	Marketeer	Ind. No. 3 Wh. Crystal Queen Meto Fred Shoesmith
	P	Trenton Silversmith Snowcap White Riviera Elegance	Icecap Acclaim Illini Alba Satellite Dolomite Snowcrest	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray Carrara	Whitetop Iceberg Shasta Stardust Little America Illini Snowdrift
YELLOW	S		Tobin's Yellow Meteore Dauntless	Dk. Yel. Chat'n'ga Gol. Mrs. Rose Golden Moeller	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yellow Explorer Cream Mefo Golden Shoesmif
	P	Ill. Brighteyes Yellow Riviera Shamrock Gold. Elegance Sun Valley Vibrant	Coronation Gold. Acclaim Spungold Dk. Yel. Satellite Corsair Yel. Snowcrest	Highlander Yel. Valencia Illini Wampum Yellow Forfune Omega Yellow Galaxy	Esquire Forty Niner Shane Ill. Goldrift Yel. Highbrow Gol. Param'nt	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
PPONZE	S			Gladys Pearson Oak Leaf	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
& RED	P	Bronze Alvoda Topaz Christ. Greet'gs Ill. Homespun Poinsettia	Debonair Christmas Star Harlequin Ap'cot Minstrel Flame Minstrel	Ap'cof Valencia Galaxy Holiday Crackerjack Red Empress	Br. Jubilation Valentine Ill. War Paint Olnura Rubaiyat	Jetfire Beauregard Wizard Bronze Portrait Climax
PINK	S		Pink Mistletoe	Pink Peter John Dk. Pk. Peter John	Calvert's Pink Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen Pk. F. Sho'sm'th
	P	Alvoda Riviera Rosalind Defiance	Eminence Debutante Minstrel Prom	Legend Delmar Valencia Empress	Magic Jubilation Almega Rive Skies	Delight Profile Cheerful

S-Standard

P-Pompon



chrysanthemum manual



Year-Round Chrysanthonium Flowering Schedule

BLOOM DECEMBER 7, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	July 20	Aug. 10	None None Aug. 17—Sept. 14 Aug. 10—Sept. 21 Aug. 3—Sept. 28	Aug. 24 No No No	14 Week 13 Week 12 Week 11 Week 10 Week
30-40°	July 27	Aug. 17	None None Aug. 17—Sept. 14 Aug. 10—Sept. 21 Aug. 3—Sept. 28	Aug. 24 No No No No	14 Week 13 Week 12 Week 11 Week 10 Week
25-30°	Aug. 10	Aug. 31	Aug. 17—Sept. 14 Aug. 10—Sept. 21 Aug. 3 —Sept. 28	No No No	12 Week 11 Week 10 Week

^{*}For No Pinch Method: Plant and Light on Pinch Date

TITTE IN PERONCE GROUPS

		14 Week	13 Week	12 Week	11 Week	10 Week
	S		Smith's White Dec. White	Chattanooga Dec. Glory Marg'et Moeller	Marketeer	Ind. No. 3 Wh. Crystal Queen Mefo Fred Shoesmith
WHITE	P	Trenton Silversmith Snowcap White Riviera Elegance	Icecap Acclaim Illini Alba Satellite Dolomite Snowcrest	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray Carrara	Whitetop Iceberg Shasta Stardust Little America Illini Snowdrift
	S		Tobin's Yellow Meteore Dauntless	Dk. Yel. Chat'n'ga Gold. Mrs. Rose Golden Moeller	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yel. Explorer Cream Mefo Gol. Shoesmith
YELLOW	P	Ill. Brighteyes Yellow Riviera Shamrock Gol. Elegance Sun Valley Vibrant	Coronation Gold. Acclaim Spungold Dk. Yel. Sat. Corsair Yel. Snowcrest	Highlander Yel. Valencia Illini Wampum Yellow Fortune Omega Yellow Galaxy	Esquire Forty Niner Shane Ill. Goldrift Yellow Highbrow Gold. Param'nt	Goldfop Yel. Beauregard Goldberg Yel. Shasta Yellow Igloo Heyday
	S	11		Gladys Pearson Oak Leaf	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
BRONZI & RED	P	Bronze Alvoda Topaz Christ. Greet'gs Ill. Homespun Poinsettia	Debonair Christmas Star Harlequin Ap'cot Minst'l Flame Minstrel	Ap'cot Valencia Galaxy Holiday Crackerjack Red Empress	Br. Jubilation Valentine Ill. War Paint Olnura Rubaiyat	Jetfire Beauregard Wizard Bronze Portrait Climax
	s		Pink Mistletoe	Pk. Peter John Dk. Pk. Peter John	Calvert's Pink Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen Pk. F. Sho'sm'th
PINK	P	Alvoda Riviera Rosalind Defiance	Eminence Debutante Minstrel Prom	Legend Delmar Valencia Empress	Magic Jubilation Almega Blue Skies	Delight Profile Cheerful

S-Standard

P-Pompon



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Year-Round Chrysanthemum Flavouring 30 **BLOOM DECEMBER 14, 1959**

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
40-50°	July 27	Aug. 17	None Aug. 24—Sept. 14 Aug. 17—Sept. 21 Aug. 10—Sept. 28 Aug. 3 —Oct. 5	No No No No	14 Week 13 Week 12 Week 11 Week 10 Week
35-40°	Aug. 3	Aug. 24	None Aug. 24—Sept. 14 Aug. 17—Sept. 21 Aug. 10—Sept. 28 Aug. 3—Oct. 5	No No No No	14 Week 13 Week 12 Week 11 Week 10 Week
30-35°	Aug. 10	Aug. 31	None Aug. 24—Sept. 14 Aug. 17—Sept. 21 Aug. 10—Sept. 28 Aug. 3—Oct. 5	No No No No	14 Week 13 Week 12 Week 11 Week 10 Week
25-30°	Aug. 17	Sept. 7	Aug. 17—Sept. 21 Aug. 10—Sept. 28 Aug. 3—Oct. 5	No No No	12 Week 11 Week 10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		14 Week	13 Week	12 Week	11 Week	10 Week
WHIT:	S		Smith's White Dec. White	Chattanooga Dec. Glory Marg'et Moeller	Marketeer	Ind. No. 3 Wh. Crystal Queen Mefo Fred Shoesmith
	P	Trenton Silversmith Snowcap White Riviera Elegance	Icecap Acclaim Illini Alba Satellite Dolomite Snowcrest	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray Carrara	Whitetop Iceberg Shasta Stardust Little America Illini Snowdrift
YELLO	s		Tobin's Yellow Meteore Dauntless	Dk. Yel. Chat'n'ga Gold. Mrs. Rose Golden Moeller	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yel. Explorer Cream Mefo Gol. Shoesmith
	P	Ill. Brighteyes Yel. Riviera Shamrock Gol. Elegance Sun Valley Vibrant	Coronation Gold. Acclaim Spungold Dk. Yel. Satel. Corsair Yel. Snowcrest	Highlander Yel. Valencia Illini Wampum Yellow Forfune Omega Yellow Galaxy	Esquire Forty Niner Shane Ill. Goldrift Yellow Highbrow Gol. Param'nt	Goldtop Yel. Beauregare Goldberg Yellow Shasta Yellow Igloo Heyday
BRON	S 7E			Gladys Pearson Oak Leaf	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
REI		Bronze Alvoda Topaz Christ. Greet'gs Ill. Homespun Poinsettia	Christ, Star	Ap'cot Valencia Galaxy Holiday Crackerjack Red Empress	Br. Jubilation Valentine Ill. War Paint Olnura Rubaiyat	Jetfire Beauregard Wizard Bronze Portrait Climax
PINK	S		Pink Mistletoe	Pink Peter John Dk. Pk. Peter John	Calvert's Pink Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen Pk. F. Sho'sm'th
7777-1	P	Alvoda Riviera Rosalind Defiance	Eminence Debutante Minstrel Prom	Legend Delmar Valencia Empress	Magic Jubilation Almega Blue Skies	Delight Portrait Cheerful

Yezz-Reuml Chrysanthemum Flowering Schedule

BLOOM	DECEMBER	21, 1959
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LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			None	no	15 Week
			Aug. 31-Sept. 14	no	14 Week
42			Aug. 24-Sept. 21	no	13 Week
40-50°	Aug. 3	Aug. 24	Aug. 17-Sept. 28	no	12 Week
1			Aug. 10-Oct. 5	no	11. Week
			Aug. 4 Oct. 12	no	10 Week
			None	no	15 Week
	Aug. 17	Sept. 7	Aug. 31-Sept. 14	no	14 Week
0 = 400			Aug. 24-Sept. 21	no	13 Week
35-40°			Aug. 17-Sept. 28	no	12 Week
			Aug. 17-Oct. 5	no	11 Week
			Aug. 17-Oct. 12	no	10 Week
			Aug. 24-Sept. 21	no	13 Week
30-35°	Aug. 24	Cont 14	Aug. 24-Sept. 28	no	12 Week
30-35	Aug. 24	Sept. 14	Aug. 24-Oct. 5	no	11 Week
			Aug. 24-Oct. 12	no	10 Week
1			Aug. 24-Sept. 28	no	12 Week
25-30°	Aug. 24	Sept. 14	Aug. 24-Oct. 5	no	11 Week
1			Aug. 24-Oct. 12	no	10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		15 Week	14 Week	13 Week	12 Week	11 Week	10 Week
	S			Smith's White Dec. White	Chaffanooga December Glory Marg'ef Moeller	Marketeer	Ind. No. 3 Wh. Crystal Queen Meto Fred Shoesmith
WHITE	P	Revelation Snow Talmeda Ill. Cascade	Trenton Silversmith Snowcap White Riviera Elegance	Icecap Acclaim Illini Alba Satellite Dolomite Snowcrest	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray Carrara	Whitetop Iceberg Shasta Stardust Little America Illini Snowdrift
	S			Tobin's Yellow Meteore Dauntless	Dk. Yel. Chat'n'ga Gol. Mrs. Rose Golden Moeller	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yel. Explorer Cream Mefo Gol. Shoesmith
YELLOW	P	Siren Yuleflame Yel. Snow	III. Brighteyes Yellow Riviera Shamrock Gol. Elegance Sun Valley Vibrant	Coronation Gold. Acclaim Spungold Dk. Yel. Satel. Corsair Yel. Snowcrest	Highlander Yel. Valencia Illini Wampum Yellow Fortune Omega Yellow Galaxy	Esquire Forty Niner Shane Ill. Goldrift Yel. Highbow Gol. Param'nt	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	S	And the			Gladys Pearson Oak Leaf	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
BRONZE & RED	P		Bronze Alvoda Topaz Christ. Greet'gs Ill. Homespun Poinsettia	Debonair Christmas Star Harlequin Ap'cot Minstrel Flame Minstrel	Ap'cot Valencia Galaxy Holiday Crackerjack Red Empress	Br. Jubilation Valentine Ill. War Paint Olnura Rubaiyat	Jetfire Beauregard Wizard Bronze Portrait Climax
PINK	S			Pink Mistletoe	Pink Peter John Dk. Pk. Pet. John	Calvert's Pink Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen Pk. F. Sho'sm'th
	P	/ E % Tarana	Alvoda Riviera Rosalind Defiance	Eminence Debutante Minstrel Prom	Legend Delmar Valencia Empress	Magic Jubilation Almega Blue Skies	Delight Profile Cheerful



Gloeckner chrysanthemum manual

Year-Round Chrysanthemum Flowering School-

BLOOM DECEMBER 28, 1959

LATITUDE	PLANT	PINCH*	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			None	l no	15 Week
			Aug. 31—Sept. 21	no	14 Week
40-50°	A 10	Aug. 31	Aug. 24-Sept. 28	no	13 Week
40-50	Aug. 10	Aug. 31	Aug. 17-Oct. 5	no	12 Week
			Aug. 10-Oct. 12	l no	11 Week
			Aug. 10-Oct. 19	no	10 Week
			None	no I	15 Week
			Aug. 31-Sept. 21	no	14 Week
AT 400	A 17	Sept. 7	Aug. 24-Sept. 28	no	13 Week
35-40°	Aug. 17		Aug. 17-Oct. 5	no	12 Week
			Aug. 17-Oct. 12	no 🖃	11 Week
			Aug. 17-Oct. 19	по	10 Week
			Aug. 24-Sept. 28	l no	13 Week
00.050	A 24	Court 14	Aug. 24-Oct. 5	no	12 Week
30-35°	Aug. 24	Sept. 14	Aug. 24-Oct. 12	no	11 Week
			Aug. 24-Oct. 19	no E	10 Week
			Aug. 31-Oct. 5	no	12 Week
25-30°	Aug. 31	Sept. 21	Aug. 31-Oct. 12	no	11 Week
			Aug. 31-Oct. 19	no	10 Week

*For No Pinch Method: Plant and Light on Pinch Date

		15 Week	14 Week	13 Week	12 Week	11 Week	10 Week
	s			Smith's White Dec. White	Chattanooga December Glory Marg'et Moeller	Marketeer	Ind. No. 3 Wh. Crystal Queen Meio Fred Shoesmith
WHITE	P	Revelation Snow Talmeda Ill. Cascade	Trenton Silversmith Snowcap White Riviera Elegance	Icecap Acclaim Illini Alba Satellite Dolomite Snowcrest	Silvercrest Illini Peace White Valencia Fortune Illini Glacier	Sculpture Jupiter Highbrow Paramount Belray Carrara	Whitetop Iceberg Shasta Stardust Little America Illini Snowdrift
	S			Tobin's Yellow Meteore Dauntless	Dk. Yel. Chat'n'ga Gol. Mrs. Rose Golden Moeller	Friendly Rival Harvester Marie DePetris	Imp. Ind. Yel. Explorer Cream Mefo Gol. Shoesmith
AELLOM	P	Siren Yuleflame Yel. Snow	III. Brighteyes Yellow Riviera Shamrock Gol. Elegance Sun Valley Vibrant	Coronation Gold. Acclaim Spungold Dk. Yel. Satel. Corsair Yel. Snowcrest	Highlander Yel. Valencia Illini Wampum Yellow Foriune Omega Yellow Galaxy	Esquire Forty Niner Shane III. Goldrift Yel. Highbrow Gol. Param'nt	Goldtop Yel. Beauregard Goldberg Yellow Shasta Yellow Igloo Heyday
	8				Gladys Pearson Oak Leaf	Balcombe Perf. Calvert's Gold	Ind. Bronze Copper Queen
BRONZE & RED	P		Bronze Alvoda Topaz Christ. Greet'gs Ill. Homespun Poinsettia	Christmas Star	Ap'cot Valencia Galaxy Holiday Crackerjack Red Empress	Br. Jubilation Valentine Ill. War Paint Olnura Rubaiyat	Jeifire Beauregard Wizard Bronze Portrail Climax
	S			Pink Mistletoe	Pink Peter John Dk. Pk. Pet. John	Calvert's Pink Thanks. Pink Ed Seidewitz	Ind. Pink Orchid Queen Pk. F. Sho'sm'f
PINK	P		Alvoda Riviera Rosalind Defiance	Eminence Debutante Minstrel Prom	Legend Delmar Valencia Empress	Magic Jubilation Almega Blue Skies	Delight Profile Cheerful

Chrysanthemum Pot Plant Culture



Mermaid

High quality pot plants can only be grown when all cultural conditions are optimum. By optimum conditions we refer particularly to the basic conditions of a good soil, disease-free cuttings, the absence of any checks in growth from cutting to the mature flowering plant, adequate means of temperature control and the selection of the right varieties.

Soil

A good fibrous silt loam directly from the field, to which one-third to one-half of well-rotted manure or German peat has been added, plus an application of super-phosphate will give excellent results. Steam sterilization of the soil is advisable. You can plant immediately after steaming, provided you water heavily after planting the cuttings. Some growers are getting extra quick root action by using a top dressing of onehalf inch of German peat over their regular soil mix-ture in each pot and planting through this mulch of peat. It saves on watering and produces more breaks after pinching.

Watering and Humidity

After planting, water thoroughly to set the soil around the roots. Repeat this type of watering when the soil gets dry. Organic matter in the soil will facilitate watering and will tend to avoid extreme fluctuations in moisture supply. You can overwater a chrysanthemum as easily as a poinsettia plant. Overwatering will rot the

roots, and the tops will take on a very yellow color.

For best results grow all potted chrysanthemums under glass. Do not shade the glass any more than necessary. Usually a light shade is necessary in midsummer. Shade on the glass is only there for the convenience of the grower and not for the requirements of the plant. Keep humidity in the house by wetting down benches and walks, and by an occasional syringing over the plants.

Fertilizing

The foliage should retain a bright green luster throughout the life of the plant. The lower leaves should never be allowed to turn a light green due to low fertility. A strong well-grown pot plant is a well-fed plant, Pot plants should be fed more frequently than those grown in a bench, as constant leaching lowers the nutrient level in pots faster than in bench culture.

Liquid fertilizers are very effective. Weekly feedings have produced excellent results. After the cuttings are planted, water the plants in with a weak solution (starter solution) of a complete soluble fertilizer and continue to feed weekly thereafter. Last feeding should be made when the plants are ready to sell. Maintain continuous and accurate feedings during the winter as well as during the remainder of the year. During the winter months cut the fertilizer concentration to I ounce to 8 gallons of water.

Feeding everytime you water with a Fert-O-Ject has proven to be very reliable method of fertilizing. Tests at Ohio State University confirmed this. They had the best results when plants were fertilized (I oz. to 15 gallons) each time they were watered.

Temperature

The optimum night temperature is 65 degrees. Day temperatures should be 75 to 85 degrees when the light intensity is high and 70 degrees during cloudy days. Heat checks develop when the night temperatures reach 90 degrees or higher. This check is very similar to the check that develops when plants are taken out of short-day treatment too early or when the black cloth treatment is missed too often. The only practical way to overcome this heat check is to install air conditioning to lower the temperatures. Growing the crop at less than a 65 degree night temperature results in uneven and delayed flowering. A gradual temperature drop to 55 degrees after buds show color is advisable for some pink and bronze varieties.

Shading and Disbudding

Use same procedure as for cut flower crop. Black cloth treatment should continue until the buds are taken. The last pinch is usually made the same day short-day treatment is started. However, if you are troubled with tall potted plants, delay the last pinch 10 to 14 days after starting the shading program. Disbud each shoot to one bud when buds are large enough to handle.



Red Star

Chrysanthemum Pot Plant Culture

Planting and Pinching

Plant the rooted cuttings which have been graded for height and stem diameter directly into the finishing pot. Rhizoctonia will develop in the stem when the cuttings are planted too deeply. It is better to plant the cuttings around the pot rather than the four with one in the center practice. Planting the cuttings on an angle will increase the number of breaks that develop after the pinch.

Single Stem Method (No-Pinch Method). Plant 7 to 8 cuttings in a 6-inch pot and give short day treatment immediately. Do not pinch. You save from one to three weeks growing time over the pinch method. Disbud to a single bloom per plant. The blooms will be very large and the stems will be much stronger than when growing pinched plants. For larger pots plant 10 cuttings in 8-inch pots. Some new varieties that should be grown as single stem are: Malou, Mrs. Wolfe, Mrs. Palmero, Bronze Palmero, Loubens, Cossack, Red Star, Vulcan and Woking Scarlet.

Single-Pinch Method. The most practical method of growing potted plants today. It is much faster and produces a very uniform plant with strong stems. Plant 5 cuttings of Bonnaffon Deluxe or 6 cuttings of the other varieties in a 6-inch pot. Pinch the plants high in the soft growth according to the schedule found in the year-round program.

The term short, medium and tall treatment refers to the height of the plants and different treatments are given so as to make all varieties about the same height when ready to sell. Wilson's White is given the short treatment by giving the plant 7 to 14 long days after the pinch before starting the short day treatment. With varieties like Bonnaffon Deluxe we give them the medium treatment, that is short days, the day we pinch. The tall treatment includes varieties



Mrs. Wolfe Single Stem Method

such as Little America and Sunburst which receive 7 to 14 short days before pinching. Our year-round schedule takes this into consideration so that your plants should finish all about the same height.

Two-Pinch Method. The most common method a few years ago and still used some for Fall bloom, especially where larger plants are wanted. Plant 4 or 5 cuttings in 6-inch pots; 4 to 6 cuttings in 7-inch, and 7 to 9 cuttings in 8-inch pots. Pinch the plants the first time 14 days after planting and wait 21 days and pinch the second time. Long-day treatment should be maintained either naturally or through the use of additional light during this period. Short-day treatment should start at the time of the second pinch.

What causes tall plants? Many factors contribute to this excessive growth, 1. Crowding, 2. Growing in a cool 60 degrees. 3. Night temperatures over 90 degrees. 4. Not applying black cloth regularly each night. 5. Growing with too much shade on glass. 6. Giving too many long days before pinching, then pinching too high. 7. Variety.



Woking Scarlet



Pink Deluxe

Chrysanthemum Pot Plant Culture

Garden Mum Pot Plants for Mother's Day

Garden mum plants in full bloom make ideal potted plants for Mother's Day. This should be a valuable addition to the list of spring pot plants. For best results. 5 cuttings should be planted in a 6-inch pot or 2 cuttings in a 4-inch pot. After these pot plants are through flowering, they should be cut back to within 3 inches of the soil level and planted into the garden. These same plants will bloom again in the fall.

Many growers have greatly increased their sale of garden chrysanthemums by having collections in bloom during the spring season. Cuttings are planted one to a 3-inch or 31/2-inch pot using the procedure outlined below for Single-Pinch Method.

SINGLE -- PINCH METHOD*

BLOOM	PLANT	LIGHTING PERIOD		PINCH	SHADE
EASTER (Mar. 29)	January 12	Jan. 12—Jan.	22	Jan. 22	no
MOTHER'S DAY (May 10)	March 2	Mar. 2—Mar.	9	Mar. 9	Apr. 6
MEMORIAL DAY (May 30)	March 16	Mar. 16—Mar.	23	Mar. 23	Apr. 6

^{*} For double-pinch method plant five weeks earlier and give first pinch seven days after planting. The second pinch should be made on the pinch date given in the single-pinch method. Be sure to light from the date of planting until date of second pinch.

VARIETIES:

WHITE

Chris Columbus Ostosa Benora Maestro Larry Gardenia Jessamine Williams Pilgrim

YELLOW

Yellow Chris Columbus Moonlight Astoria Sunburst Blazing Gold Kings Ransom Yellow Spoon

BRONZE & RED

Lipstick

Coralhue

Radiance

Lee-Ette

Majestic

W. P. Snyder Aglow **Dolli-Ette** Toronto Morocco Mrs. DuPont

PINK

Spellbound Mischief Joybringer Alert **Fuchsia Fairy** Cupid Candytuft Raspberry Ice



Lee-Ette - 3-inch pot



Dolli-Ette - 3-inch pot

BLOOM JANUARY 4, 1960

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Charm	Oct. 5	Oct. 5 - Oct. 19	Oct. 19	no
Oregon	 Oct. 5	Oct. 5 - Oct. 26	Oct. 19	no
S Valentine S Calvert's Orange Vedova Venoya	Oct. 12	Oct. 12 - Oct. 19	Oct. 26	no
Chalk Cliff S Cossack S Red Star Criterion Personality S Loubens	Oct. 12	Oct. 12 - Oct. 26	Oct. 26	no
Queen's Lace Gold Lace	Oct. 12	Oct. 12 - Oct. 26	1st Nov. 2 2nd Nov. 30	no
Snow Crystal	Oct. 19	Oct. 19 - Oct. 26	Nov. 2	no
Luna Snowclad Sundial S Wis Wolfe S Mrs. Palmero S Bronze Palmero Bridesmaid Queen of Pinks	Oct. 19	Oct. 19 - Nov. 2	Nov. 2	no

BLOOM JANUARY 11, 1960

Bonnaffon Deluxe Calvert's Gold Charm	Oct. 12	Oct. 12 - Oct. 26	Oct. 26	no
Oregon Trail. Vellow Delaware. Delaware. S Sandrock. Mermaid.	Oct. 12	Oct. 12 - Nov. 2	Oct. 26	по
S Valentine 5 Calvert's Orange Vedova Venoya	Oct. 19	Oct. 19 - Oct. 26	Nov. 2	no
Chalk Cliff S Cossack S Red Star Criterion Personality S Loubens	Oct. 19	Oct. 19 - Nov. 2	Nov. 2	no
Queen's Lace	Oct. 19	Oct. 19 - Nov. 2	1st Nov. 9 2nd Dec. 7	no
Snow Crystal	Oct. 26	Oct. 26 - Nov. 2	Nov. 9	no
Luna	Oct. 26	Oct. 26 - Nov. 9	Nov. 9	no

BLOOM JANUARY 18, 1960

	VARIETIES	PLANT 5 OR CUTTINGS IN 6" POT		PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Oct. 19	Oct. 19 - Nov. 2	Nov. 2	no
s	Oregon. Oregon Trail. Yellow Delaware. Delaware. Sandrock. Mermaid.	Oct. 19	Oct. 19 - Nov. 9	Nov. 2	no
Sign	Valentine Calvert's Orange Vedova Venoya	Oct. 26	Oct. 26 - Nov. 2	Nov. 9	no
5	Chalk Cliff. Cossack. Red Star. Criterion. Personality. Loubens.	Oct. 26	Oct. 26 - Nov. 9	Nov. 9	no
	Queen's Lace Gold Lace	Oct. 26	Oct. 26 - Nov. 9	1st Nov. 16 2nd Dec. 14	no
S	Snow Crystal	Nov. 2	Nov. 2 - Nov. 9	Nov. 16	по
5	Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Bridesmaid Queen of Pinks	Nov. 2	Nov. 2 - Nov. 16	Nov. 16	no

5 — For Single Stem Pots — Plant and Shade on Pinch Dates

BLOOM JANUARY 25, 1960

Bonnaffon Deluxe Calvert's Gold Charm	Oct. 26	Oct. 26 - Nov. 9	Nov. 9	no
Oregon Oregon Trail Yellow Delaware Delaware S Sandrock Mermaid	Oct. 26	Oct. 26 - Nov. 16	Nov. 9	no
S Valentine S Calvert's Orange Vedova Venoya	Nov. 2	Nov. 2 - Nov. 9	Nov. 16	no
Chalk Cliff. S Cossack	Nov. 2	Nov. 2 - Nov. 16	Nov. 16	no
Queen's Lace Gold Lace	Nov. 2	Nov. 2 - Nov. 16	1st Nov. 23 2nd Dec. 21	no
Snow Crystal	Nov. 9	Nov. 9 - Nov. 16	Nov. 23	no
Luna Snowclad Snowclad Soundial S Mrs. Wolfe S Mrs. Palmero S Bronze Palmero Bridesmaid Queen of Pinks	Nov. 9	Nov. 9 - Nov. 23	Nov. 23	no



BLOOM FEBRUARY 1, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Nov. 2	Nov. 2 - Nov. 16	Nov. 16	no
s	Oregon	Nov. 2	Nov. 2 - Nov. 23	Nov. 16	no
	Valentine Calvert's Orange Vedova Venoya	Nov. 9	Nov. 9 - Nov. 16	Nov. 23	no
S	Chalk Cliff	Nov. 9	Nov. 9 - Nov. 23	Nov. 23	no
	Granite State Patterson's White	Nov. 9	Nov. 9 - Nov. 30	Nov. 23	no
	Queen's LaceGold Lace	Nov. 9	Nov. 9 - Nov. 23	1st Nov. 30 2nd Dec. 28	по
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Nov. 16	Nov. 16 - Nov. 23	Nov. 30	no
S	Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Bridesmaid Queen of Pinks	Nov. 16	Nov. 16 - Nov. 30	Nov. 30	no

5 — For Single Stem Pots — Plant and Shade on Pinch Dates

BLOOM FEBRUARY 8, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Nov. 9	Nov. 9 - Nov. 23	Nov. 23	no
s	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	Nov. 9	Nov. 9 - Nov. 30	Nov. 23	no
S	Valentine Calvert's Orange Vedova Venoya	Nov. 16	Nov. 16 - Nov. 23	Nov. 30	no
S	Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Loubens	Nov. 16	Nov. 16 - Nov. 30	Nov. 30	no
	Granite State Patterson's White	Nov. 16	Nov. 16 - Dec. 7	Nov. 30	no
	Queen's LaceGold Lace	Nov. 16	Nov. 16 - Nov. 30	1st Dec. 7 2nd Jan. 4	no
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Nov. 23	Nov. 23 - Nov. 30	Dec. 7	no
S	Luna	Nov. 23	Nov. 23 - Dec. 7	Dec. 7	no

BLOOM FEBRUARY 15, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Nov. 16	Nov. 16 - Nov. 30	Nov. 30	no
5	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	Nov. 16	Nov. 16 - Dec. 7	Nov. 30	no
5	Valentine Calvert's Orange Vedova Venoya	Nov. 23	Nov. 23 - Nov. 30	Dec. 7	no
5	Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Loubens	Nov. 23	Nov. 23 - Dec. 7	Dec. 7	no
	Granite State Patterson's White	Nov. 23	Nov. 23 - Dec. 14	Dec. 7	no
	Queen's LaceGold Lace	Nov. 23	Nov. 23 - Dec. 7	1st Dec. 14 2nd Jan. 11	no
	Snow Crystal	Nov. 30	Nov. 30 - Dec. 7	Dec. 14	no
	Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Bridesmaid Queen of Pinks	Nov. 30	Nov. 30 - Dec. 14	Dec. 14	no

^{5 -} For Single Stem Pots - Plant and Shade on Pinch Dates



BLOOM FEBRUARY 22, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Nov. 23	Nov. 23 - Dec. 7	Dec. 7	no
S	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	Nov. 23	Nov. 23 - Dec. 14	Dec. 7	no
S	Valentine Calvert's Orange Vedova Venoya	Nov. 30	Nov. 30 - Dec. 7	Dec. 14	no
S	Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Loubens	Nov. 30	Nov. 30 - Dec. 14	Dec. 14	no
	Granite State Patterson's White	Nov. 30	Nov. 30 - Dec. 21	Dec. 14	no
	Queen's LaceGold Lace	Nov. 30	Nov. 30 - Dec. 14	1st Dec. 21 2nd Jan. 18	no
S	Snow Crystal	Dec. 7	Dec. 7 - Dec. 14	Dec. 21	no
5	Luna	Dec. 7	Dec. 7 - Dec. 21	Dec. 21	no

^{5 -} For Single Stem Pots - Plant and Shade on Pinch Dates



BLOOM FEBRUARY 29, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Nov. 30	Nov. 30 - Dec. 14	Dec. 14	no
S	Oregon	Nov. 30	Nov. 30 - Dec. 21	Dec. 14	no
5	Valentine Calvert's Orange Vedova Venoya	Dec. 7	Dec. 7 - Dec. 14	Dec. 21	no
S	Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Humdinger Loubens	Dec. 7	Dec. 7 - Dec. 21	Dec. 21	no
	Granite State Patterson's White	Dec. 7	Dec. 7 - Dec. 28	Dec. 21	no
	Queen's LaceGold Lace	Dec. 7	Dec. 7 - Dec. 21	1st Dec. 28 2nd Jan. 25	no
5	Snow Crystal	Dec. 14	Dec. 14 - Dec. 21	Dec. 28	no
	Monty	Dec. 14	Dec. 14 - Dec. 28	Dec. 28	no



BLOOM MARCH 7, 1960

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Calvert's Gold Charm	Dec. 7	Dec. 7 - Dec. 21	Dec. 21	no
S	Oregon	Dec. 7	Dec. 7 - Dec. 28	Dec. 21	no
S	Valentine Calvert's Orange Vedova Venoya	Dec. 14	Dec. 14 - Dec. 21	Dec. 28	no
S	Chalk Cliff	Dec. 14	Dec. 14 - Dec. 28	Dec. 28	no
	Granite State Patterson's White	Dec. 14	Dec. 14 - Jan. 4	Dec. 28	no
	Queen's Lace	Dec. 14	Dec. 14 - Dec. 28	1st Jan. 4 2nd Feb. 1	no
S	Snow Crystal	Dec. 21	Dec. 21 - Dec. 28	Jan. 4	no
S	Moniy Quicksilver Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Bridesmaid Queen of Pinks Blue Ribbon	Dec. 21	Dec. 21 - Jan. 4	Jan. 4	no

BLOOM MARCH 14, 1960

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Charm	Dec. 14	Dec. 14 - Dec. 28	Dec. 28	no
S Oregon	Dec. 14	Dec. 14 - Jan. 4	Dec. 28	no
S Valentine S Calvert's Orange Vedova Venoya	Dec. 21	Dec. 21 - Dec. 28	Jan. 4	no
Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Humdinger Loubens	Dec. 21	Dec. 21 - Jan. 4	Jan. 4	no
Granite State Patterson's White	Dec. 21	Dec. 21 - Jan. 11	Jan. 4	no
Queen's LaceGold Lace	Dec. 21	Dec. 21 - Jan. 4	1st Jan. 11 2nd Feb. 8	no
Snow Crystal	Dec. 28	Dec. 28 - Jan. 4	Jan. 11	no
Monty. Quicksilver Luna. Snowclad. Sundial. Mrs. Wolfe. Mrs. Palmero. Bronze Palmero Bridesmaid. Queen of Pinks.	Dec. 28	Dec. 28 - Jan. 11	Jan. 11	no



BLOOM MARCH 21, 1960

_	VARIETIES	PLANT 5 CUTTIN 6" I	GS IN	LI	GHTING PERIO	D	PINCH	SHAD
	Bonnaffon Deluxe Calvert's Gold Charm	Dec.	21	Dec.	21 - Jan.	4	Jan. 4	no
5	Oregon	Dec.	21	Dec.	21 - Jan.	11	Jan. 4	no
5	Valentine Calvert's Orange Vedova Venoya	Dec.	28	Dec.	28 - Jan.	4	Jan. 11	no
5	Chalk Cliff	Dec.	28	Dec.	28 - Jan.	11	Jan. 11	no
	Granite State Patterson's White	Dec.	28	Dec.	28 - Jan.	18	Jan. 11	no
	Queen's LaceGold Lace	Dec.	28	Dec.	28 - Jan.	11	1st Jan. 18 2nd Feb. 15	no
	Snow Crystal	Jan.	4	Jan.	4 - Jan.	11	Jan. 18	no
	Monfy Quicksilver Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Bridesmaid Queen of Pinks Blue Ribbon	Jan.	4	Jan.	4 - Jan.	14	Jan. 14	no

BLOOM MARCH 28, 1960

	VARIETIES		5 OR 6 NGS IN POT	LI	GHTING PERIO	D	PINCH	SHAD
	Bonnaffon Deluxe	Dec.	28	Dec.	28Jan.	. 11	Jan. 11	no
S	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	Dec.	28	Dec.	28 - Jan.	18	Jan. 11	no
	Valentine Calvert's Orange Vedova Venoya	Jan.	4	Jan.	4 - Jan.	11	Jan. 18	no
S	Chalk Cliff Cossack Red Star Criterion Personality Portrait Varieties Humdinger Loubens	Jan.	4	Jan.	4 - Jan.	14	Jan. 14	no
	Granife State	Jan.	4	Jan.	4 - Jan.	21	Jan. 14	no
	Queen's Lace	Jan.	4	Jan.	4 - Jan.	14	1st Jan. 21 2nd Feb. 18	no
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Jan.	11	Jan.	11 - Jan.	14	Jan. 21	no
	Monty Quicksilver Luna Snowclad Sundial Mrs. Wolfe Mrs. Palmero Bronze Palmero Resolute Alex Colson Bridesmaid Queen of Pinks	Jan.	11	Jan.	11 - Jan.	21	Jan. 21	no
	Gardenia Blazing Gold	Jan.	18	Jan.	18 - Jan.	28	Jan. 28	no

			BLOG	OM AP	RIL	6,	1959			
VARIE	TIES	PLANT CUTTIN	IGS IN	LIC	SHTING	PERIOD		PIN	СН	SHADE
Bonnaffor	Deluxe	Jan.	5	Jan.	5 -	Jan.	15	Jan.	15	no
Yellow Del Delaware.	laware	Jan.	5	Jan.	5 -	Jan.	22	Jan.	15	no
Criterion Personalit	Y	Jan.	12	Jan.	12 -	Jan.	22	Jan.	22	no
Granite St Wilson's V Wilson's Y	ateVhite	Jan.	12	Jan.	12 -	Jan.	29	Jan.	22	no
Queen's La Gold Lace.	1ce	Jan.	12	Jan.	12 -	Jan.	22	1st J 2nd F	lan. 29 eb. 26	no
Little Ame Ind. Varie	tal rica fies ariefies ke	Jan.	19	Jan.	19 -	Jan.	22	Jan.	29	no
Snowclad. Luna Resolute Blue Ribbe	on	Jan.	19	Jan.	19 -	Jan.	29	Jan.	29	no
	old	Jan.	26	Jan.	26 -	Feb.	5	Feb.	5	no
		1	BLOO	M AP	RIL	13,	1959	9		
Bonnaffon	Deluxe	Jan.	12	Jan.	12 -	Jan.	22	Jan.	22	Mar. 1
Oregon Yellow Del Delaware Mermaid	aware	Jan.	12	Jan.	12 -	Jan.	29	Jan.	22	Mar. 2
Criterion Personalit	Y	Jan.	19	Jan.	19 -	Jan.	29	Jan.	29	Mar. 23
Granite Sta Wilson's V Wilson's Y		Jan.	19	Jan.	19 -	Feb.	5	Jan.	29	Mar. 30
	ice	Jan.	19	Jan.	19 -	Jan.	29	1st Feb. 2nd Mar.	5 5	Mar. 2
Little Ame Ind. Variet	fal rica lies ariefies	Jan.	26	Jan.	26 -	Jan.	29	Feb.	5	Mar. 23
Snowclad Luna Resolute Blue Ribbo	on	Feb.	2	Feb.	2 -	Feb.	9	Feb.	9	Mar. 30
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BLOOM APRIL 20, 1959

	VARIETIES	PLANT S CUTTIN 6" F	GS IN	LIG	HTING PERIOD		PIN	СН	SHA	DE
	Bonnaffon Deluxe	Jan.	19	Jan.	19 - Jan.	29	Jan.	29	Mar.	16
S	Oregon Yellow Delaware Delaware Mermaid	Jan.	19	Jan.	19 - Feb.	5	Jan.	29	Mar.	23
	Chalk Cliff	Feb.	2	Feb.	2 - Feb.	9	Feb.	9	Mar.	23
	Granite State Wilson's White Wilson's Yellow	Feb.	2	Feb.	2 - Feb.	16	Feb.	9	Mar.	30
	Queen's LaceGold Lace	Feb.	2		None		1st Feb. 2nd Mar.	9	Mar.	23
s	Snow Crystal	Feb.	9		None		Feb.	16	Mar.	23
s	Monty Snowclad Luna Resolute Blue Ribbon	Feb.	9	Feb.	9 - Feb.	16	Feb.	16	Mar.	30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Effe Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Effe Spellbound Mischief Joybringer Raspberry Ice Raleri Candyfuft Cupid	Feb.	16	Feb.	16 - Feb.	23	Feb.	23	Apr.	6



BLOOM APRIL 27, 1959

	VARIETIES	PLANT : CUTTIN 6" I	GS IN	LIG	HTING PERIOD		PIN	СН	SHADE
	Bonnaffon Deluxe	Feb.	2	Feb.	2 - Feb.	9	Feb.	9	Mar. 16
S	Oregon Yellow Delaware Delaware Mermaid	Feb.	2	Feb.	2 - Feb.	16	Feb.	9	Mar. 23
	Chalk Cliff	Feb.	9	Feb.	9 - Feb.	16	Feb.	16	Mar. 23
S	Granite State	Feb.	9	Feb.	9 - Feb.	23	Feb.	16	Mar. 30
	Queen's Lace	Feb.	9		None		1st Feb. 2nd Mar.		Mar. 23
s	Snow CrystalLittle AmericaInd. VarietiesPortrait VarietiesPortrait VarietiesPink Deluxe	Feb.	16		None		Feb.	23	Mar. 23
s	Monty	Feb.	16	Feb.	16 - Feb.	23	Feb.	23	Mar. 30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Effe Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Effe Spellbound Mischief Joybringer Raspberry Ice Alert Candyfuff Cupid	Feb.	23	Feb.	23 - Mar.	2	Mar.	2	Apr. 6



BLOOM MAY 4, 1959

	VARIETIES		5 OR 6 IGS IN POT	LIC	SHTING PERIOD		PIN	сн	SHADE
	Bonnaffon Deluxe	Feb.	9	Feb.	9 - Feb.	16	Feb.	16	Mar. 1
S	Oregon Yellow Delaware Delaware Mermaid	Feb.	9	Feb.	9 - Feb.	23	Feb.	16	Mar. 2
	Chalk Cliff	Feb.	16	Feb.	16 - Feb.	23	Feb.	23	Mar. 2
S	Granite State	Feb.	16	Feb.	16 - Mar.	2	Feb.	23	Mar. 30
	Queen's Lace	Feb.	16		None		1st Feb. 2nd Mar.		Mar. 23
s	Snow CrystalLittle AmericaInd. VarietiesPortrait VarietiesPink Deluxe	Feb.	23		None		Mar.	2	Mar. 23
s	Monty	Feb.	23	Feb.	23 - Mar.	2	Mar.	2	Mar. 30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Ette Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Ette Spellbound Mischief Joybringer Raspberry Ice Allert Candytuft Cupid	Mar.	2	Mar.	2 - Mar.	9	Mar.	9	Apr. 6



BLOOM MAY 11, 1959

	VARIETIES	PLANT S CUTTIN 6" F	GS IN	LIG	HTING PERIOD		PIN	СН	SHADE
	Bonnaffon Deluxe	Feb.	16	Feb.	16 - Feb.	23	Feb.	23	Mar. 1
S	Oregon Yellow Delaware Delaware Mermaid	Feb.	16	Feb.	16 - Mar.	2	Feb.	23	Mar. 2
	Chalk Cliff Criterion Personality Humdinger	Feb.	23	Feb.	23 - Mar.	2	Mar.	2	Mar. 23
	Granite State Wilson's White Wilson's Yellow	Feb.	23	Feb.	23 - Mar.	9	Mar.	2	Mar. 30
	Queen's Lace	Feb.	23		None		1st Mar. 2nd Mar.		Mar. 23
s	Snow Crystal	Mar.	2		None		Mar.	9	Mar. 23
s	Monty	Mar.	2	Mar.	2 - Mar.	9	Mar.	9	Mar. 30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Efte Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Efte Spellbound Mischief Joybringer Raspberry Ice Alert Fuchsia Fairy Candytuft Cupid	Mar.	9	Mar.	9 - Mar.	16	Mar.	16	Apr. 6

BLOOM MAY 18, 1959

	VARIETIES	PLANT 5 CUTTIN 6" F	GS IN	Li	GHTING PERIOD		PIN	СН	SHA	DE
	Bonnaffon Deluxe	Feb.	23	Feb.	23 - Mar.	2	Mar.	2	Mar.	- 10
S	Oregon Yellow Delaware Delaware Mermaid	Feb.	23	Feb.	23 - Mar.	9	Mar.	2	Mar.	23
	Chalk Cliff	Mar.	2	Mar.	2 - Mar.	9	Mar.	9	Mar.	23
S	Granite State Wilson's White Wilson's Yellow	Mar.	2	Mar.	2 - Mar.	16	Mar.	9	Mar.	30
	Queen's LaceGold Lace	Mar.	2		None		1st Mar. 2nd Apr.		Mar.	23
S	Snow Crystal	Mar.	9		None		Mar.	16	Mar.	23
	Monty	Mar.	9	Mar.	9 - Mar.	16	Mar.	16	Mar.	30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Effe Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Effe Spellbound Mischief Joybringer Raspberry Ice Alert Fuchsia Fairy Cancytuft Cupid	Mar.	16	Mar.	16 - Mar.	23	. Mar.	23	Apr.	ć



BLOOM MAY 25, 1959

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe	Mar. 2	Mar. 2 - Mar. 9	Mar. 9	Mar. 16
S	Oregon Yellow Delaware Delaware Mermaid	Mar. 2	Mar. 2 - Mar. 16	Mar. 9	Mar. 23
	Chalk Cliff Criterion Personality Humdinger	Mar. 9	Mar. 9 - Mar. 16	Mar. 16	Mar. 23
	Granite State Wilson's White Wilson's Yellow	Mar. 9	Mar. 9 - Mar. 23	Mar. 16	Mar. 30
	Queen's LaceGold Lace	Mar. 9	None	1st Mar. 16 2nd Apr. 23	Mar. 23
S	Snow Crystal	Mar. 16	None	Mar. 23	Mar. 23
	Monty	Mar. 16	Mar. 16 - Mar. 23	Mar. 23	Mar. 30
	Ostosa Larry Chris Columbus Jessamine Williams Benora Maestra Pilgrim Gardenia Yel. Chris Columbus Moonlight Astoria Yellow Spoon Kings Ransom Sunburst Blazing Gold W. P. Snyder Lipstick Remembrance Aglow Mona Dolli-Ette Toronto Morocco Coralhue Mrs. DuPont Radiance Majestic Lee-Ette Spellbound Mischief Joybringer Raspberry Ice Alert Fuchsia Fairy Candyfuff Cupid	Mar. 23	Mar. 23 - Mar. 30	Mar. 30	Apr. 6

BLOOM JUNE 1, 1959

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	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe	Mar. 9	Mar. 9 - Mar. 16	Mar. 16	Mar. 16
SSS	Oregon Yellow Delaware Incurve Delaware Mermaid.	Mar. 9	Mar. 9 - Mar. 23	Mar. 16	Mar. 23
S	Granite State Wilson's White Wilson's Yellow	Mar. 16	Mar. 16 - Mar. 30	Mar. 23	Mar. 30
	Queen's Lace	Mar. 16	None	1st Mar. 23 2nd Apr. 30	Mar. 23
s	Snow Crystal	Mar. 23	None	Mar. 30	Mar. 23
s	Monty Snowclad Luna Resolute Blue Ribbon	Mar. 23	Mar. 23 - Mar. 30	Mar. 30	Mar. 30

BLOOM JUNE 8, 1959

	Bonnaffon Deluxe	Mar. 16	Mar. 16 - Mar.	23 Mar.	23 Mar. 23
S	Oregon Yellow Delaware Incurve Delaware Mermaid	Mar. 16	Mar. 16 - Mar.	30 Mar.	23 Mar. 30
	Granite State	Mar. 23	Mar. 23 - Apr.	6 Mar.	30 Apr. 6
	Queen's LaceGold Lace	Mar. 23	None	1st Mar. 2nd Apr.	THUIL TO
s	Snow Crystal	Mar. 30	None	Apr.	6 Mar. 30
s	Monty Snowclad Luna Resolute Blue Ribbon	Mar. 30	Mar. 30 - Apr.	6 Apr.	6 Apr. 6



			BLOO	M JUN	E 15,	1959				
	VARIETIES	PLANT 5 CUTTING 6" P	S IN	LIGHT	ING PERIOD		PIN	СН	SHA	DE
	Bonnaffon Deluxe	Mar.	23	Mar. 2	3 - Mar.	30	Mar.	30	Mar.	30
5	Oregon Yellow Delaware Incurve Delaware Mermaid	Mar.	23	Mar. 2	?3 - Apr.	6	Mar.	30	Apr.	- 6
	Granite State	Mar.	30	Mar. 3	30 - Apr.	13	Apr.	6	Apr.	13
	Queen's LaceGold Lace	Mar.	30		None		1st Apr. 2nd May		Mar.	30
	Snow Crystal Criterion Humdinger Personality Portrait Varieties Pink Deluxe	Apr.	6		None		Apr.	13	Apr.	6
5	Monty	Apr.	6	Apr.	6 - Apr.	13	Apr.	13	Apr.	13
			BLOO	M JUN		1959				
	Bonnaffon Deluxe	Mar.	30	Mar. 3	30 - Apr.	6	Apr.	6	Apr.	
S	Oregon Yellow Delaware Incurve Delaware Mermaid	Mar.	30	Mar. 3	30 - Apr.	13	Apr.	6	Apr.	13
	Wilson's White Poitevine Supreme	Apr.	6	Apr.	6 - Apr.	20	Apr.	13	Apr.	20
	Queen's LaceGold Lace	Apr.	6		None		1st Apr. 2nd May		Apr.	. 6
s	Capricorn Luminary Scepter Red Star Criterion Personality Humdinger Loubens	Apr.	6	Apr.	6 - Apr.	13	Apr.	13	Apr.	. 13
5	Snow Crystal Pink Deluxe Portrait Varieties	Apr.	13		None		Apr.	20	Apr.	. 13
S	Quicksilver	Apr.	13	Apr.	13 - Apr.	20	Apr.	20	Apr	. 20

		BLOO	M JUNE 29, 1959		
-	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe	Apr. 6	Apr. 6 - Apr. 13	Apr. 13	Apr. 1
- 5	Oregon Cregon Trail Yellow Delaware Mermaid	Apr. 6	Apr. 6 - Apr. 20	Apr. 13	Apr. 20
S	Wilson's White Poitevine Supreme	Apr. 13	Apr. 13 - Apr. 27	Apr. 20	Apr. 27
	Capricorn. Luminary. Scepter. Red Star Criterion. Loubens. Portrait Varieties.	Apr. 13	Apr. 13 - Apr. 20	Apr. 20	Apr. 20
	Snow Crystal Pink Deluxe	Apr. 20	None	Apr. 27	Apr. 20
SSS	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Apr. 20	Apr. 20 - Apr. 27	Apr. 27	Apr. 27
	Alex Colson	Apr. 27	None	May 4	Apr. 27
		BLOC	M JULY 6, 1959		
-	Bonnaffon Deluxe	Apr. 13	Apr. 13 - Apr. 20	Apr. 20	Apr. 20
S	Oregon	Apr. 13	Apr. 13 - Apr. 27	Apr. 20	Apr. 27
	Wilson's White Poitevine Supreme	Apr. 20	Apr. 20 - May 4	Apr. 27	May 4
	Capricorn Luminary Scepter Red Star Criferion Portrait Varieties Loubens	Apr. 20	Apr. 20 - Apr. 27	Apr. 27	Apr. 27
	Snow Crystal Pink Deluxe	Apr. 27	None	May 4	Apr. 27
	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Apr. 27	Apr. 27 - May 4	May 4	May 4
	Alex Colson	May 4	None	May 11	May 4



		Brook	M JULY 13, 1959		
	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe	Apr. 20	Apr. 20 - Apr. 27	Apr. 27	Apr. 27
5 5 5	Oregon Oregon Trail Yellow Delaware Sandrock Mermaid	Apr. 20	Apr. 20 - May 4	Apr. 27	May 4
	Wilson's White Poitevine Supreme	Apr. 27	Apr. 27 - May 11	May 4	May 11
	Capricorn	Apr. 27	Apr. 27 - May 4	May 4	May 4
	Snow Crystal Pink Deluxe	May 4	None	May 11	May 4
SSS	Quicksilver	May 4	May 4 - May 11	May 11	May 11
_	Alex Colson	May 11	None	May 18	May 11
		BLOO	M JULY 20, 1959		
	Bonnaffon Deluxe	Apr. 27	Apr. 27 - May 4	May 4	May 4
S	Oregon Oregon Trail Yellow Delaware Sandrock Mermaid	Apr. 27	Apr. 27 - May 11	May 4	May 11
	Wilson's White Poitevine Supreme	May 4	May 4 - May 18	May 11	May 18
	Capricorn Luminary Scepter Red Star Criterion Portrait Varieties Loubens	May 4	May 4 - May 11	May 11	May 11
_	Snow Crystal Pink Deluxe	May 11	None	May 18	May 11
SSS	Quicksilver	May 11	None	May 18	May 18
3	Alex Colson	May 18	None	May 25	May 18
	Alex Colson	May 18	None	May 25	May 1

BLOOM	JULY	27, 1959	
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	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	PINCH	SHADE
	Bonnaffon Deluxe	May 4	May 11	May 11
SSSS	Oregon	May 4	May 11	May 18
S	Wilson's White	May 11	May 18	May 25
	Capricorn Luminary Scepter Red Star Criterion Loubens Portrait Varieties	May 11	May 18	May 18
	Snow CrystalPink Deluxe	May 18	May 25	May 18
SSS	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	May 18	May 25	May 25
	Alex Colson	May 25	June 1	May 25

BLOOM AUGUST 3, 1959

Bonn	affon Deluxe	May	11	May	18	May	18
S Orego S Yellov S Sandr	on on Trail w Delaware ock	May	11	May	18	May	25
	n's Whitevine Supreme	May	18	May	25	June	1
Lumir Scepte Red St Criteri Portra	corn	May	18	May	25	Мау	25
Snow Pink I	Crystal Deluxe	May	25	June	1	May	25
Sundi Resolu S Blue R Brides S Malou S Mrs. V S Mrs. P	silver	May	25	June	1	June	1
Alex C	olson	June	1	June	8	June	1



BLOC	M AU	JGUST	10,	1959		
VARIETIES	PLANT 5 CUTTING 6" PG	S IN		PINCH	SHAI	DE
Bonnaffon Deluxe	May	18		May 25	May	25
Oregon Oregon Trail Vellow Delaware Sandrock Mermaid	May	18		May 25	June	1
Wilson's White	May	25		June 1	June	8
Capricorn. Luminary. Scepter. Red Star Criterion. Loubens. Portrait Varieties	May	25		June 1	June	1
Snow CrystalPink Deluxe	June	1		June 8	June	1
S Quicksilver. Sundial. Resolute. Slue Ribbon. Bridesmaid. Malou. S Mrs. Wolfe. S Mrs. Palmero.	June	1		June 8	June	8
Alex Colson	June	8		June 15	June	8
BLOG Bonnaffon Deluxe	May	UGUST 25	17,	1959 June 1	June	1
S Oregon Oregon Trail Yellow Delaware Sandrock Mermaid	May			June 1	June	8
Wilson's White	June	1		June 8	June	15
Capricorn Luminary Scepter Red Star Criterion Portrait Varieties	June	1		June 8	June	8
Snow Crystal Pink Deluxe	June	8		June 15	June	8
Quicksilver. Sundial. Resolute Blue Ribbon. Bridesmaid. Mrs. Wolfe. Mrs. Palmero.	June	8		June 15	June	15
Alex Colson	June			June 22	June	15

	VARIETIES	PLANT 5 CUTTING 6" PC	S IN	PINCH	SHADE
	Bonnaffon Deluxe	June	1	June 8	June 1
SSSS	Oregon Oregon Trail Yellow Delaware Sandrock Mermaid	June	1	June 8	June 12
S	Wilson's White Poitevine Supreme	June	8	June 15	June 22
	Capricorn Luminary Scepter Red Star Criterion Humdinger Loubens	June	8	June 15	June 15
	Snow CrystalPink Deluxe	June	15	June 22	June 15
S	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	June	15	June 22	June 22
	Alex Colson	June	22	June 29	June 22

Bonnaffon Deluxe..... June 15 June June Oregon Oregon Trail Yellow Delaware June June 15 June 22 Sandrock..... Wilson's White..... June 15 June 22 June 29 S Poitevine Supreme..... S Capricorn..... Luminary..... Scepter..... Red Star..... June 15 June 22 June 22 Criterion..... Humdinger..... Golden Favourite..... Loubens..... Snow Crystal June 22 June 29 June 22 Pink Deluxe..... S Quicksilver..... Sundial..... Resolute..... S Blue Ribbon..... Bridesmaid..... June 22 June 29 June 29 Malou.... Bronze Palmero..... Alex Colson..... June 29 June 29

	BLOOM	SEP	TEMBER	7,	1959			
	VARIETIES	PLANT 5 CUTTING 6" Pe	S IN		PINC	н	SHA	DE
	Bonnaffon Deluxe	June	15		June	22	June	1
5 5 5	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	June	15		June	22	June	2
S S	Wilson's WhitePoitevine Supreme	June	22		June	29	July	
S	Capricorn Luminary Scepter Red Star Criterion Personality Humdinger Loubens Golden Favourife	June	22		June	29	June	2
	Snow CrystalPink Deluxe	June	29		July	6	June	29
SSS	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	June	29		July	6	July	ć
	Alex Colson	July	,			10	1.1.	
	Royal Bronze	July	6		July	13	July	_
	Royal Bronze	-	rember	14,		13	July	
	Royal Bronze	-	FEMBER	14,			June	
555	BLOOM	SEPT	TEMBER 22	14,	1959	29		22
555	BLOOM Bonnaffon Deluxe Oregon Oregon Trail Yellow Delaware Delaware Sandrock	SEP1	22 22	14,	1959 June	29	June	22
5555	BLOOM Bonnaffon Deluxe Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid Wilson's White	June June	22 22 22	14,	June June	29 29 6	June	22
555555555555555555555555555555555555555	BLOOM Bonnaffon Deluxe	June June	22 22 22 29 29	14,	June July	29 29 6	June July July	13
5555	BLOOM Bonnaffon Deluxe	June June June	22 22 29 29 6	14,	June July July	29 29 6 6	June July July	13

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	BLOOM	SEP	TEMBER	21,	1959			
	VARIETIES	PLANT 5 CUTTING	GS IN		PINC	СН	SHA	DE
	Bonnaffon Deluxe	June	29		July	6	June	29
55555	Oregon Trail Yellow Delaware Delaware	June	29		July	6	July	13
S	Wilson's WhitePoitevine Supreme	July	6		July	13	July	20
S	Capricorn Luminary Scepter Red Star Criterion Personality Humdinger Loubens Golden Favourite	July	6		July	13	July	13
	Snow CrystalPink Deluxe	July	13		July	20	July	13
SSS	Quicksilver Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	July	13		July	20	July	20
-	Alex Colson	July	20		July	27	July	20
	BLOOM	SEPT	EMBER	28,	1959			
	Bonnaffon Deluxe	July	6	T	July	13	July	6
SS	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	July	6		July	13	July	20
S	Wilson's WhitePoitevine Supreme	July	13		July	20	July	27
s	Capricorn Luminary Scepter Red Star Criterion Humdinger Golden Favourite Loubens	July	13		July	20	July	20
-	Snow CrystalPink Deluxe	July	20		July	27	July	20
SSS	Quicksilver. Sundial Resolute Blue Ribbon Bridesmaid Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	July	20		July	27	July	27
	Alex ColsonRoyal Bronze	July	27		Aug.	3	July	27

BLOOM OCTOBER 5, 1959

	VARIETIES	PLANT 5 CUTTING 6" P	S IN		PINC	н	SHA	DE
S	Bonnaffon Deluxe. Calvert' Gold. Charm.	July	13	4	July	20	July	20
SSSS	Oregon TrailYellow Delaware	July	13		July	20	July	27
S	Valentine Calveri's Orange Vedova Venoya	July	20		July	27	July	20
		July	20	-	July	27	July	27
S	Wilson's White Poitevine Supreme Barbara Fuller	July	20	•	July	27	Aug.	(
	Queen's Lace	July	27	1st / 2nd /			Aug.	4
SSS	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	July	27		Aug.	3	July	27
SSSS	Quicksilver	July	27		Aug.	3	Aug.	
	Alex Colson	Aug.	3		Aug.	10	Aug.	



BLOOM OCTOBER 12, 1959

VARIETIES	PLANT 5 C CUTTINGS 6" POT	IN	LIGHTING PERIOD	PINC	Н	SHA	DE
Bonnaffon Deluxe S Calverts' Gold Charm	July 2	0	None	July	27	July	27
S Oregon	July 2	0	None	July	27	Aug.	3
S Valentine S Calvert's Orange Vedova Venoya	July 2	7	None	Aug.	3	July	27
Calk Cliff S Capricorn Luminary Scepter S Red Star Criterion Personality Humdinger S Golden Favourite S Cossack Loubens	July 2	7	None	Aug.	3	Aug.	3
S Wilson's White S Poitevine Supreme Barbara Fuller	July 2	7	July 27 - Aug. 10	Aug.	3	Aug.	10
Queen's LaceGold Lace	Aug.	3	None	1st Aug. 2nd Aug.		Aug.	10
Snow Crystal	Aug.	3	None	Aug.	10	Aug.	3
S Quicksilver	Aug.	3	Aug. 3 - Aug. 10	Aug.	10	Aug.	10
Alex Colson Royal Bronze	Aug. 1	0	None	Aug.	17	Aug.	10



BLOOM OCTOBER 19, 1959

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
S	Bonnaffon Deluxe Calvert's Gold Charm.	July 27	None	Aug. 3	Aug. 3
55	Oregon Oregon Trail Yellow Delaware Delaware Sandrock Mermaid	July 27	July 27 - Aug. 10	Aug. 3	Aug. 10
S	Valentine Calvert's Orange Vedova Venoya	Aug. 3	None	Aug. 10	Aug. 3
S	Calk Cliff Luminary Scepter Red Star Criterion Personality Humdinger Golden Favourite Cossack Loubens	Aug. 3	Aug. 3 - Aug. 10	Aug. 10	Aug. 10
S	Wilson's White Poitevine Supreme Barbara Fuller	Aug. 3	Aug. 3 - Aug. 17	Aug. 10	Aug. 17
	Queen's LaceGold Lace	Aug. 10	Aug. 10 - Aug. 17	1st Aug. 17 2nd Sept. 7	Aug. 17
S	Snow Crystal	Aug. 10	None	Aug. 17	Aug. 10
20101	Quicksilver Snowclad Luna Sundial Resolute Blue Ribbon Bridesmaid Queen of Pinks Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Aug. 10	Aug. 10 - Aug. 17	Aug. 17	Aug. 17
	Alex Colson Royal Bronze	Aug. 17	None	Aug. 24	Aug. 17

BLOOM OCTOBER 26, 1959

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
S	Bonnaffon Deluxe Calvert's Gold Charm	Aug. 3	None	Aug. 10	Aug. 10
5	Oregon Oregon Trail Tellow Delaware Delaware Sandrock Mermaid	Aug. 3	Aug. 3 - Aug. 17	Aug. 10	Aug. 17
S	Valentine Calvert's Orange Vedova Venoya	Aug. 10	None	Aug. 17	Aug. 10
S	Calk Cliff Luminary Scepter Red Star Criterion Personality Humdinger Golden Favourite Cossack Loubens	Aug. 10	Aug. 10 - Aug. 17	Aug. 17	Aug. 17
S	Wilson's White Poitevine Supreme Barbara Fuller	Aug. 10	Aug. 10 - Aug. 24	Aug. 17	Aug. 24
	Queen's Lace	Aug. 17	Aug. 17 - Aug. 24	1st Aug. 24 2nd Sept. 14	Aug. 24
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Aug. 17	None	Aug. 24	Aug. 17
S	Quicksilver Snowclad Luna Sundial Resolufe Blue Ribbon Bridesmaid Queen of Pinks Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Aug. 17	Aug. 17 - Aug. 24	Aug. 24	Aug. 24
	Alex Colson Royal Bronze	Aug. 24	None	Aug. 31	Aug. 24

BLOOM NOVEMBER 2, 1959

VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
Bonnaffon Deluxe Calvert's Gold Charm	Aug. 10	Aug. 10 - Aug. 17	Aug. 17	Aug. 17
S Oregon S Oregon Trail S Yellow Delaware S Delaware Mermaid	Aug. 10	Aug. 10 - Aug. 24	Aug. 17	Aug. 24
S Valentine S Calvert's Orange Vedova Venoya	Aug. 17	None	Aug. 24	Aug. 17
Chalk Cliff S Red Star Criterion Personality Humdinger S Cossack Loubens	Aug. 17	Aug. 17 - Aug. 24	Aug. 24	Aug. 24
S Wilson's White S Poitevine Supreme Barbara Fuller	Aug. 17	Aug. 17 - Aug. 31	Aug. 24	Aug. 31
Queen's LaceGold Lace	Aug. 24	Aug. 24 - Aug. 31	1st Aug. 31 2nd Sept. 21	Aug. 31
Snow Crystal	Aug. 24	None	Aug. 31	Aug. 24
S Quicksilver	Aug. 24	Aug. 24 - Aug. 31	Aug. 31	Aug. 3
Alex Colson Royal Bronze	Aug. 31	None	Sept. 7	Aug. 3

BLOOM NOVEMBER 9, 1959

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
S	Bonnaffon Deluxe Calvert's Gold Charm	Aug. 17	Aug. 17 - Aug. 24	Aug. 24	Aug. 24
S	Oregon Oregon Trall Yellow Delaware Delaware Mermaid	Aug. 17	Aug. 17 - Aug. 31	Aug. 24	Aug. 31
S	Valentine Calvert's Orange Vedova Venoya	Aug. 24	None	Aug. 31	Aug. 24
s	Chalk Cliff Red Star Criterion Personality Humdinger Cossack Loubens	Aug. 24	Aug. 24 - Aug. 31	Aug. 31	Aug. 31
S	Wilson's White Poitevine Supreme Barbara Fuller	Aug. 24	Aug. 24 - Sept. 7	Aug. 31	Sept. 7
	Queen's Lace	Aug. 31	Aug. 31 - Sept. 7	1st Sept. 7 2nd Sept. 28	Sept. 7
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Aug. 31	None	Sept. 7	Aug. 31
S	Quicksilver Snowclad Luna Sundial Blue Ribbon Bridesmaid Queen of Pinks Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Aug. 31	Aug. 31 - Sept. 7	Sept. 7	Sept. 7
	Alex Colson Royal Bronze	Sept. 7	None	Sept. 14	Sept. 7



BLOOM NOVEMBER 16, 1959

	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
S	Bonnaffon Deluxe Calvert's Gold Charm	Aug. 24	Aug. 24 - Aug. 31	Aug. 31	Aug. 31
S	Oregon Trail Yellow Delaware Delaware Mermaid	Aug. 24	Aug. 24 - Sept. 7	Aug. 31	Sept. 7
	Valentine Calvert's Orange Vedova Venoya	Aug. 31	None	Sept. 7	Aug. 31
s	Chalk Cliff Red Star Criterion Personality Humdinger Cossack Leubens	Aug. 31	Aug. 31 - Sept. 9	Sept. 9	Sept. 9
	Wilson's White Poitevine Supreme Barbara Fuller	Aug. 31	Aug. 31 - Sept. 16	Sept. 9	no
	Queen's LaceGold Lace	Sept. 7	Sept. 7 - Sept. 14	1st Sept. 14 2nd Oct. 12	no
S	Snow Crystal	Sept. 7	None	Sept. 14	Sept. 7
S	Quicksilver	Sept. 7	Sept. 7 - Sept. 17	Sept. 17	Sept. 17
	Alex ColsonRoyal Bronze	Sept. 14	None	Sept. 21	no

		BLOOM	NOVEMBER 23,	1959	
	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe Charm	Aug. 31	Aug. 31 - Sept. 9	Sept. 9	no
	Oregon Yellow Delaware Delaware Mermaid	Aug. 31	Aug. 31 - Sept. 16	Sept. 9	no
	Valentine Calvert's Orange	Sept. 7	None	Sept. 14	no
5	Chalk Cliff	Sept. 7	Sept. 7 - Sept. 17	Sept. 17	no
	Queen's LaceGold Lace	Sept. 14	Sept. 14 - Sept. 21	1st Sept. 21 2nd Oct. 19	no
	Snow Crystal	Sept. 14	None	Sept. 21	no
S	Quicksilver. Snowclad Blue Ribbon Bridesmaid. Queen of Pinks. Malou Mrs. Wolfe. Mrs. Palmero. Bronze Palmero.	Sept. 7	Sept. 7 - Sept. 19	Sept. 19	no
		BLOOM	NOVEMBER 30,	1959	
	Bonnaffon Deluxe Charm	Sept. 7	Sept. 7 - Sept. 16	Sept. 16	no
	Oregon Yellow Delaware Delaware Mermaid	Sept. 7	Sept. 7 - Sept. 23	Sept. 16	no
	Valentine Calvert's Orange	Sept. 14	None	Sept. 21	no
;	Chalk Cliff	Sept. 7	Sept. 7 - Sept. 19	Sept. 19	no
	Queen's LaceGold Lace	Sept. 21	Sept. 21 - Sept. 28	1st Sept. 28 2nd Oct. 26	no
	Snow Crystal	Sept. 14	Sept. 14 - Sept. 21	Sept. 28	no
	Quicksilver	Sept. 14	Sept. 14 - Sept. 26	Sept. 26	no



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Year-Round Pot Plant Schedule

		BLOOM	DECEMBER 7, 19	959	
	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADI
	Bonnaffon Deluxe Charm	Sept. 7	Sept. 7 - Sept. 19	Sept. 19	no
5	Oregon Yellow Delaware Delaware Mermaid	Sept. 7	Sept. 7 - Sept. 26	Sept. 19	no
S	Valentine Calvert's Orange	Sept. 14	Sept. 14 - Sept. 19	Sept. 26	no
S	Chalk Cliff Red Star Criferion Personality Cossack Loubens	Sept. 14	Sept. 14 - Sept. 26	Sept. 26	no
	Queen's LaceGold Lace	Sept. 28	Sept. 28 - Oct. 5	1st Oct. 5 2nd Nov. 2	no
S	Snow Crystal. Ice Follies Little America. Ind. Varieties Vulcan Woking Scarlet Prolic. Pink Deluxe.	Sept. 21	Sept. 21 - Sept. 28	Oct. 5	no
SSS	Quicksilver Blue Ribbon Bridesmaid Queen of Pinks Malou Mrs. Wolfe Mrs. Palmero Bronze Palmero	Sept. 21	Sept. 21 - Oct. 3	Oct. 3	no
		BLOOM	DECEMBER 14, 1	959	
	Bonaffon Deluxe Charm.	Sept. 14	Sept. 14 - Sept. 26	Sept. 26	no
S	Oregon	Sept. 14	Sept. 14 - Oct 3	Sept. 26	no
S	Valentine Calvert's Orange	Sept. 21	Sept. 21 - Sept. 28	Oct. 5	no
S	Chalk Cliff. Red Star	Sept. 21	Sept. 21 - Oct. 3	Oct. 3	no
	Queen's LaceGold Lace	Oct. 5	Oct 5 - Oct. 12	1st Oct. 12 2nd Nov. 9	no
S	Snow Crystal	Sept. 28	Sept. 28 - Oct. 5	Oct. 12	no
5 5 5 5	Quicksilver. Blue Ribbon Bridesmaid. Queen of Pinks. Malou Mrs. Wolfe. Mrs. Palmero. Bronze Palmero.	Sept. 28	Sept. 28 - Oct. 12	Oct. 12	no



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Year-Round Pot Plant Schedule

		BLOOM	DECEMBER 21, 1	959	
	VARIETIES	PLANT 5 OR 6 CUTTINGS IN 6" POT	LIGHTING PERIOD	PINCH	SHADE
	Bonnaffon Deluxe	Sept. 21	Sept. 21 - Oct. 3	Oct. 3	no
5	Oregon	Sept. 21	Sept. 21 - Oct. 10	Oct. 3	no
	Valentine Calvert's Orange	Sept. 28	Sept. 28 - Oct. 5	Oct. 12	no
5	Chalk Cliff Red Star Criterion Personality Cossack Loubens	Sept. 28	Sept. 28 - Oct. 12	Oct. 12	no
	Queen's Lace	Oct. 5	Oct. 5 - Oct. 19	1st Oct. 19 2nd Nov. 16	no
S	Snow Crystal Ice Follies Little America Ind. Varieties Vulcan Woking Scarlet Frolic Pink Deluxe	Oct. 5	Oct. 5 - Oct. 12	Oct. 19	no
SSS	Blue Ribbon	Oct. 5	Oct. 5 - Oct. 19	Oct. 19	no
		BLOOM	DECEMBER 28, 1	959	
	Bonnaffon Deluxe	Sept. 28	Sept. 28 - Oct. 12	Oct. 12	no
S	Oregon Yellow Delaware Delaware Mermaid	Sept. 28	Sept. 28 - Oct. 19	Oct. 12	no
	Valentine Calvert's Orange		Oct. 5 - Oct. 12	Oct. 19	no
92	Chalk Cliff	Oct. 5	Oct. 5 - Oct. 19	Oct. 19	no
	Queen's LaceGold Lace		Oct. 12 - Oct. 26	1st Oct. 26 2nd Nov. 23	no
62.67	Snow Czystal	Oct. 12	Oct. 12 - Oct. 19	Oct. 26	no
9	Blue Ribbon	Oct. 12	Oct. 12 - Oct. 26	Oct. 26	no

Fast Disbuds and Fast Sprays

Varieties suitable for this program include not only a number of popular standard types such as the Indianapolis group, but also numerous large flowered pompon, single, decoratives, and anemone types, which, when disbudded to one flower, result in three to four inch blooms, this being the size range that is generally sought for. Stem lengths generally range from 24 to

Why are They Becoming Popular?

First of all, they are distinctively beautiful and versatile in their use. The chrysanthemum, as is known in European floriculture, is devoted exclusively to these intermediate to large disbuds. It is thought that this method of culture partly resulted because the greatest percentage of flowers produced are purchased directly for home use. Thus, they can justifiably be called "Home-size-mums" with great future potential as we on the North American continent look forward to an expansion in our present home markets. The retail designer will use them to the same advantage as he does a carnation or a snapdragon because of their individuality in arrangement, but will favor the disbudded mum because of its rigid durability both in handling and in keeping qualities.

Efficient Croppers and Money Makers for the Producer

The schedule allows for approximately 3 and 1/3 crops to be produced on a given bench area within a 52week period which will produce a total of 36 to 40 individual flowers per sq. ft. As markets are both developed and educated to absorb these shorter stemmed disbuds, even greater efficiencies in reducing total crop time will be possible.

How are They Grown?

SPACING—Allowing a minimum of 12 sq. inches for each flowering stem during the higher light periods of the year ranging to a maximum of 15 to 18 sq. inches per stem during the lowest and poorest light periods, has been found to be sufficiently adequate to produce this crop.

Since this crop is to be pinched, the recommendation is to plant either 4" x 6" apart and prune each plant to two stems or plant 6" x 6" and prune each plant to three stems.

Optimum grade uniformity is generally achieved by permitting only two stems to remain on each plant. This procedure is specifically recommended when the

large standard types of mums (Indianapolis, etc.) are to be grown in this fast schedule, whereas many of the intermediate type disbud varieties will readily support three stems per plant. Either method of handling will provide the same total production per given sq. ft. of bench area.



Market Pack of Fast Disbud

RECOMMENDED SPACING

Summer Flowering	6''	Х	4''	Two	stems	per	plant
Spring & Fall	6''	Х	5''	Two	stems	, per	plant
Winter Flowering	6"	Х	6"		stems		

PRUNING—Selecting the two or three most uniformly vigorous shoots on each pinched plant and removing the remaining or extra breaks should be done at the earliest possible time. If growth is freely active, this pruning operation can be done 10 to 14 days after the pinch. Careless delay in the pruning operation will shorten the height of the crop below that which is normally possible with the given schedule.

DISBUDDING-Much like the pruning operation. In order to achieve maximum flower development and size, select the one flowering bud, usually the terminal bud, early, whenever the side buds are firm and can be rolled or snapped off easily.

CULTURAL POINTERS — The principles of growing Fast Disbuds as related to soils, planting, fertilizing, temperature, watering, insect and disease control, are essentially the same as are recommended and required in the production of a regular scheduled crop of either pompons or standards.



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Year-Round Fast Schedule

FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Aug. 31-Oct. 12	no	12 Week
January 4, 1960	Aug. 31	Sept. 21	Aug. 31-Oct. 19	по	11 Week
,		· '	Aug. 31-Oct. 26	no	10 Week
			Sept. 7 -Oct. 19	no	12 Week
January 11, 1960	Sept. 7	Sept. 28	Sept. 7 —Oct. 26	no	11 Week
			Sept. 7 —Nov. 2	no	10 Week
			Sept. 14-Oct. 26	no	12 Week
January 18, 1960	Sept. 14	Oct. 5	Sept. 14-Nov. 2	no	11 Week
			Sept. 14—Nov. 9	no	10 Week
			Sept. 21-Nov. 2	no	12 Week
January 25, 1960	Sept. 21	Oct. 12	Sept. 21-Nov. 9	no	11 Week
			Sept. 21—Nov. 16	no	10 Week
			Sept. 28-Nov. 9	no	12 Week
February 1, 1960	Sept. 28	Oct. 19	Sept. 28-Nov. 16	no	11 Week
			Sept. 28-Nov. 23	no	10 Week
			Oct. 5 -Nov. 16	no	12 Week
February 8, 1960	Oct. 5	Oct. 26	Oct. 5 -Nov. 23	no	11 Week
			Oct. 5 -Nov. 30	no	10 Week
			Oct. 12-Nov. 23	no	12 Week
February 15, 1960	Oct. 12	Nov. 2	Oct. 12-Nov. 30	no	11 Week
			Oct. 12-Dec. 7	no	10 Week
			Oct. 19-Nov. 30	no	12 Week
February 22, 1960	Oct. 19	Nov. 9	Oct. 19-Dec. 7	no	11 Week
_			Oct. 19-Dec. 14	no	10 Week
			Oct. 26-Dec. 7	no	12 Week
February 29, 1960	Oct. 26	Nov. 16	Oct. 26—Dec. 14	no	11 Week
•			Oct. 26—Dec. 21	no	10 Week

VARIETIES IN RESPONSE GROUPS

	12 Week	11 Week	10 Week
WHITE	White Peter John Champ Illini Glacier	White Norma Marketeer Ermine John Baumann Surfside	Ind. White Imp. Ind. White Ind. No. 3 White
YELLOW	Yellow Peter John Yellow Glory	Shane Suzanne Miller Yellow Marketeer	Ind. Yellow Imp. Ind. Yellow Luyona
BRONZE & RED	Bronze Peter John Forever Amber Red Empress	Valentine Olnura	Ind. Bronze Dark Ind. Bronze
PINK	Pink Peter John Orchid Valencia Empress	Dark Norma Vedova Venoya Thanks. Pink Ed Seidewitz	Ind. Pink Southdown Pink Plum Cadenza Laughter

Year-Round Fast Schedule

FAST DISBUDS AND FAST SPRAYS

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Nov. 2 -Dec. 21	no	11 week
March 7, 1960	Nov. 2	Nov. 23	Nov. 2 —Dec. 28	no	10 week
			Nov. 2 —Jan. 4	по	9 week
			Nov. 9 —Dec. 28	no	11 week
March 14, 1960	Nov. 9	Dec. 7	Nov. 9 —Jan. 4	no	10 week
			Nov. 9 —Jan. 11	no	9 week
			Nov. 16—Jan. 4	no	11 week
March 21, 1960	Nov. 16	Dec. 14	Nov. 16—Jan. 11	no	10 week
			Nov. 16—Jan. 18	no	9 week
			Nov. 30-Jan. 11	no	11 week
March 28, 1960	Nov. 30	Dec. 28	Nov. 30-Jan. 18	no	10 week
			Nov. 30—Jan. 25	no	9 week
			Dec. 7 —Jan. 25	no	10 week
April 4, 1960	Dec. 7	Jan. 4	Dec. 7 —Feb. 1	no	9 week
			Dec. 7 —Feb. 8	no	8 week
			Dec. 21—Feb. 1	no	10 week
April 11, 1960	Dec. 21	Jan. 18	Dec. 21—Feb. 8	no	9 week
			Dec. 21—Feb. 15	no	8 week
			Dec. 28-Feb. 8	Mar. 21	10 week
April 18, 1960	Dec. 28	Jan. 26	Dec. 28—Feb. 15	Mar. 28	9 week
			Dec. 28—Feb. 22	Apr. 4	8 week
			Jan. 12—Feb. 16	Mar. 23	10 week
April 27, 1959	Jan. 12	Feb. 9	Jan. 12—Feb. 23	Mar. 30	9 week
			Jan. 12—Mar. 2	Apr. 6	8 week

VARIETIES IN RESPONSE GROUPS

	11 Week	10 Week	9 Week	8 Week
WHITE	White Norma Marketeer Ermine John Baumann Surfside	Ind. White Imp. Ind. White Ind. No. 3 White	Queen's Lace Silver Bow Camille Baumann	
YELLOW	Shane Suzanne Miller Yellow Marketeer	Imp. Ind. Yellow Ind. Yellow Yellow Iceberg Chairman Gordon Wells	Luyona Gold Lace Yellow Ivanhoe	Harvest Golden Sunburst Blazing Gold
BRONZE & RED	Valentine Olnura	Ind. Bronze Dark Ind. Bronze Daybreak	Duchess Ivanhoe	Amber Bright
PINK	Pioneer Vedova Venoya Thanks. Pink Ed Seidewitz	Ind. Pink Southdown Pink Cadenza Laughter Merriment	Blue Ribbon Bunbu	



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Year-Round Fast Schedule

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
			Jan. 19—Feb. 23	Mar. 23	10 Week
May 4, 1959	Jan. 19	Feb. 16	Jan. 19—Mar. 2	Mar. 30	9 Week
			Jan. 19—Mar. 9	Apr. 6	8 Weel
			Jan. 26—Mar. 2	Mar. 23	10 Week
May 11, 1959	Jan. 26	Feb. 23	Jan. 26-Mar. 9	Mar. 30	9 Week
			Jan. 26—Mar. 16	Apr. 6	8 Weel
			Feb. 2 -Mar. 9	Mar. 23	10 Week
May 18, 1959	Feb. 2	Feb. 23	Feb. 2 Mar. 16	Mar. 30	9 Week
			Feb. 2 —Mar. 23	Apr. 6	8 Week
			Feb. 16-Mar. 16	Mar. 23	10 Weel
May 25, 1959	Feb. 16	Mar. 9	Feb. 16-Mar. 23	Mar. 30	9 Weel
			Feb. 16—Mar. 30	Apr. 6	8 Week
			Feb. 23—Mar. 23	Mar. 23	10 Week
June 1, 1959	Feb. 23	Mar. 16	Feb. 23—Mar. 30	Mar. 30	9 Weel
			Feb. 23-Apr. 6	Apr. 6	8 Week
			Mar. 9 —Mar. 30	Mar. 30	10 Week
June 8, 1959	Mar. 9	Mar. 30	Mar. 9 —Apr. 6	Apr. 6	9 Week
			Mar. 9 —Apr. 13	Apr. 13	8 Week
			Mar, 16—Apr. 6	Apr. 6	10 Week
June 15, 1959	Mar. 16	Apr. 6	Mar. 16—Apr. 13	Apr. 13	9 Week
		·	Mar. 16—Apr. 20	Apr. 20	8 Week
			Mar. 23—Apr. 13	Apr. 13	10 Week
June 22, 1959	Mar. 23	Apr. 13	Mar. 23—Apr. 20	Apr. 20	9 Week
		·	Mar. 23—Apr. 27	Apr. 27	8 Week
			Mar. 30—Apr. 20	Apr. 20	10 Week
June 29, 1959	Mar. 30	Apr. 20	Mar. 30-Apr. 27	Apr. 27	9 Week
			Mar, 30—May 4	May 4	8 Week

	10 Week	9 Week	8 Week
WHITE	Ind. White Imp. Ind. White Ind. No. 3 White Iceberg Ice Cream Ensign	Silver Bow Marblehead Moontide Queen's Lace Camille Baumann	Wh. Pink Chief
YELLOW	Imp. Ind. Yellow Ind. Cream Chairman Explorer Yellow Iceberg	Golden Herald Mecca Luyona Gold Lace Yellow Ivanhoe	Harvest Golden Celestra Sunburst Blazing Gold
BRONZE & RED	Ind. Bronze Dark Ind. Bronze Nectarine Fred Yule	Resolute Dorothy Hyde Stuart Ogg Zylon Duchess Ivanhoe Fred Yule	Mayford's Triumph Amber Bright Mayford Titan
PINK	Ind. Pink Vanguard Southdown Pink Plum Laughter	Thomas Johnson Blue Ribbon Bunbu Mary Garden	

Year-Round Fast Schedule

FLOWER	PLANT	PINCI	4	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
				Apr. 6 -Apr. 27	Apr. 27	10 Week
July 6, 1959	Apr. 6	Apr.	27	Apr. 6 —May 4	May 4	9 Week
				Apr. 6 —May 11	May 11	8 Week
				Apr. 13—May 4	May 4	10 Week
July 13, 1959	Apr. 13	May	4	Apr. 13—May 11	May 11	9 Week
				Apr. 13—May 18	May 18	8 Week
				Apr. 20—May 11	May 11	10 Week
July 20, 1959	Apr. 20	May	11	Apr. 20—May 18	May 18	9 Week
				Apr. 20—May 25	May 25	8 Week
				Apr. 27-May 11	May 18	10 Week
July 27, 1959	Apr. 27	May	18	Apr. 27—May 18	May 25	9 Week
`				Apr. 27—May 25	June 1	8 Week
					May 25	10 Week
August 3, 1959	May 4	May	18	no	June 1	9 Week
					June 8	8 Week
					June 1	10 Week
August 10, 1959	May 11	May	25	no	June 8	9 Week
					June 15	8 Week
					June 8	10 Week
August 17, 1959	May 18	June	1	no	June 15	9 Week
					June 22	8 Week
					June 15	10 Week
August 24, 1959	May 25	June	8	no	June 22	9 Week
					June 29	8 Week
4					June 22	10 Week
August 31, 1959	June 1	June	15	no	June 29	9 Week
					July 6	8 Week

	10 Week	9 Week	8 Week
White	Ind. White Imp. Ind. White Ind. No. 3 White Sentinel Ice Cream Ensign	Silver Bow Marblehead Moonfide Queen's Lace Themesong White Mary Garden Camille Baumann	Wh. Pink Chief
Yellow	Imp. Ind. Yellow Ind. Cream Luxury	Golden Herald Yel. Marblehead Mecca Luyona Gold Lace Yellow Ivanhoe	Harvest Golden Celestra Blazing Gold
BRONZE	Daybreak	Dorothy Hyde Zylon Fred Yule	Amber Bright
Pink	Vanguard Plum Laughter	Bunbu	



chrysanthemum manual



Year-Round Fast Schedule

FLOWER	PLANT	PINCH	START SHADE	RESPONSE GROUP
			June 29	10 Week
September 7, 1959	June 8	June 22	July 6	9 Week
			July 13	8 Week
			July 6	10 Week
September 14, 1959	June 15	June 29	July 13	9 Week
			July 20	8 Week
			July 13	10 Week
September 21, 1959	June 22	July 6	July 20	9 Week
			July 27	8 Week
			July 20	10 Week
September 28, 1959	June 22	July 6	July 27	9 Week
			Aug. 3	8 Week
			July 27	10 Week
October 5, 1959	June 29	July 13	Aug. 3	9 Week
			Aug. 10	8 Week
			July 27	11 Week
October 12, 1959	July 6	July 20	Aug. 3	10 Week
			Aug. 10	9 Week
0.1	_		Aug. 3	11 Week
October 19, 1959	July 6	July 20	Aug. 10	10 Week
			Aug. 17	9 Week
0.1.0/			Aug. 10	11 Week
October 26, 1959	July 13	July 27	Aug. 17	10 Week
			Aug. 24	9 Week

	11 Week	10 Week	9 Week	8 Week
WHITE	Marketeer John Baumann Surfside	Ind. White Imp. Ind. White Ind. No. 3 White Sentinel Iceberg Ice Cream Ensign	Silver Bow Marblehead Moontide Queen's Lace Themesong Wh. Mary Garden Camille Baumann	White Pink Chief
YELLOW	Illini Goldilocks Yellow Marketeer Shane Sultan	Imp. Ind. Yellow Ind. Cream Explorer Luxury Yellow Iceberg	Golden Herald Yel. Marblehead Mecca Luyona Gold Lace Yellow Ivanhoe	Harvest Golden Sunburst Celestra
BRONZE & RED	Valentine Illini War Paint Olnura	Ind. Bronze Dark Ind. Bronze Nectarine The Titan Daybreak	Resolute Dorothy Hyde Stuart Ogg Zylon Ivanhoe Fred Yule	Amber Bright
PINK	Pioneer Vedova Venoya Marion Breedon Rose Delight	Ind. Pink Vanguard Southdown Pink Plum Laughter	Thomas Johnson Bunbu Mary Garden	



Year-Round Fast Schedule

FLOWER	PLANT	PINCH	LIGHTING PERIOD	START SHADE	RESPONSE GROUP
November 2, 1959	July 20	Aug. 3	no	Aug. 17	11 Week
	301y 20		no	no	10 Week
November 9, 1959	July 20	Aug. 3	по	Aug. 24	11 Week
	3017 20	Aug. 5	Aug. 3 -Aug. 31	no	10 Week
			no	Aug. 24	12 Week
November 16, 1959	July 27	Aug. 10	no	no	11 Week
			Aug. 3 —Sept. 7	no	10 Week
			no	no	12 Week
November 23, 1959	Aug. 3	Aug. 17	Aug. 10—Sept. 7	по	11 Week
			Aug. 3 —Sept. 14	no	10 Week
N			Aug. 17-Sept. 7	no	12 Week
November 30, 1959	Aug. 10	Aug. 24	Aug. 10-Sept. 14	no	11 Week
			Aug. 10-Sept. 21	no	10 Week
B			Aug. 17-Sept. 14	no	12 Week
Devember 7, 1959	Aug. 10	Aug. 24	Aug. 10-Sept. 21	no	11 Week
			Aug. 10—Sept. 28	no	10 Week
D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Aug. 17-Sept. 21	no	12 Week
December 14, 1959	Aug. 17	Sept. 7	Aug. 17—Sept. 28	no	11 Week
			Aug. 17-Oct. 5	no	10 Week
D			Aug. 17-Sept. 28	no	12 Week
December 21, 1959	Aug. 17	Sept. 7	Aug. 17-Oct. 5	no	11 Week
			Aug. 17-Oct. 12	по	10 Week
Dagamban 20, 1050			Aug. 24-Oct. 5	no	12 Week
December 28, 1959	Aug. 24	Sept. 14	Aug. 24-Oct. 12	no	11 Week
			Aug. 24-Oct. 19	no	10 Week

	12 Week	11 Week	10 Week
WHITE	White Peter John Champ White Valencia Illini Glacier December Glory	White Norma Marketeer Ermine John Baumann Surfside	Ind. White Imp. Ind. White Ind. No. 3 White Ensign
YELLOW	Yellow Peter John Yellow Glory Goldsmith	Shane Susanne Miller Yellow Marketeer	Imp. Ind. Yellow Ind. Cream Nightingale Gordon Wells
BRONZE & RED	Bronze Goldsmith Forever Amber Bronze Peter John Apricot Valencia	Valentine Illini War Paint Olnura	Ind. Bronze Dark Ind. Bronze
PINK	Pink Peter John Orchid Valencia Empress	Dark Norma Vedova Venoya Thanks. Pink Ed Seidewitz	Ind. Pink Southdown Pink Plum Cadenza Laughter



Better Chrysanthemums

CUTTINGS

The cuttings you receive are produced for direct planting. They are of excellent quality, properly rooted. These cuttings all have a pedigree record as to their productiveness and freedom from diseases. Each variety is increased from single plant selections. This contributes to more uniform growth and flowering.

Handling Cuttings

The cuttings you receive have been propagated in a material containing some organic matter which naturally has some plant food. Consequently these cuttings can be planted directly into the final location. Ordinarily they will not require shading, but if they have been several days in transit and have softened up some, or if they are planted during warm, bright weather, shading with aster cloth or paper is advisable. Under no circumstances leave the covering on the plants during dull weather or at night. It is well to syringe the plants frequently until they stand up and are showing signs of growth. Some evidence shows that watering with a starter solution (weak nutrient solution) within 48 hours after planting will speed up the growth.

Deliveries

With the advent of the time pinch and the precision method of culture, it is necessary to have your cuttings arrive at a definite date. To insure proper delivery, you must plan your cutting requirements months in advance of the date wanted. We would appreciate it if you could let us know your requirements so that our propagator can plan his growing of stock plants and cuttings even more systematically than he does.

To facilitate deliveries, cuttings will be shipped on Monday and Tuesday of each week. However, we will gladly make shipment on Friday or Saturday if specifically requested and provided the order is received one month prior to the required shipping date.

Delays

With the reduced delivery schedule of the Railway Express Agency, there may be delays in delivering your shipments. Chrysanthemum cuttings can be injured from cold as well as being too long in transit. If the cuttings are slightly wilted, they should be immersed in water for a short period and then planted. They will react perfectly to such treatment. If the cuttings have been slightly trozen, placing them in a cool room and thawing them out gradually, or placing them in a pail of cool water to take the frost out will bring them through so that they will do just as well as cuttings that have had nothing happen to them. Of course, if stock is badly frozen, or if long delays have occurred so that the cuttings are heated, yellow or rotted, you should file a claim at once with the express company.

Air Freight

We have been very well satisfied with the use of Air Freight to deliver rooted cuttings this past season. Customers who are close to an airport are naturally served better than those who have to have their shipment reconsigned via Railway Express. If you plan to use air freight, you should have your telephone number appear on all shipping labels.



Well Rooted Cuttings are Grown in Air Conditioned Greenhouses

SOILS

Maintain an open, well-aerated soil that drains well in addition to having some moisture retention capacity. Periodic additions of organic matter to greenhouse soils has become a necessary practice for maintaining these desired properties that are associated with good soil management. The reason for the great care in soil preparation is to permit penetration of water and a uniform supply of fertilizer. If water remains on the surface of your soil for more than a few moments after

watering, your soil is not of good structure.

When light is a limiting factor, the chrysanthemum plant is much more sensitive to overwatering and to soluble salt content than at any other period of the year. We continue to see marked improvement and benefits when sterilization is arranged to just precede

the planting for the winter crops.

Steam Sterilization

Steam sterilization has become an integrated part of good soil management. In the past, steaming greenhouse soils once each year was thought to be adequate, but year-round producers of chrysanthemums have found that steam sterilization before each crop pays off with better quality and greater productivity. Steaming not only improves soil aggregation, but does produce magic-like effects upon growth where a continuous one-crop system is practiced.

Chemical Sterilization

If steam is not available chemical sterilization should be used. A chemical which has proven its worth is Larvacide. This material must be used when the greenhouses are empty to avoid injury to adjoining crops. The soil temperature should be at least 60 degrees or higher. When used properly you can expect favorable control of insect, diseases and weed seeds. **Dowfume**MC 2 is a combination of Methyl Bromide with a small percentage of Chloropicrin. This too should be applied similar to Larvacide and will give fair control of diseases such as those associated with this crop. Vapam is easy to apply and will give good control of weed seeds, nematodes and many fungi,

Soil Management

Soils vary a great deal over the country, and yet many good crops of chrysanthemums are grown on all types of soil. Soil itself is not the most important factor, but soil management is of extreme importance. In considering the management of soil, the following steps are suggested:

1. Apply a quarter of the volume of manure, peat or other organic substitute once a year, usually just before steam sterilization. Rototill organic matter into the soil. When growing on ground beds, watch the tilling so that no impervious layer is formed which will later cause poor drainage.

2. Steam sterilize the soil so that the coolest point is heated to 180 degrees F. for 30 minutes. Sterilize before each crop.

3. Test soil for acidity, nitrates, phosphates, potassium and soluble salts and make corrections before

4. Add several bushels of granular peat per 100 sq. ft. of area before planting and working into the top inch of soil.

5. Plant immediately after the soil cools. Waiting a week or two will increase the soluble salts into a

dangerous concentration.

6. Water heavily after planting so that the soil is firmed around the roots of the cutting. Water the plants with a half strength liquid fertilizer immediately after the first watering. Continue to water heavily until the plants have become well established.

7. Maintain the following Spurway nutrient levels: Nitrate Nitrogen 10-25 p.p.m. Phosphorus 5-10 p.p.m. Potassium 20-40 p.p.m. 200-250 p.p.m. Calcium 6.0-7.0 Solubridge reading (1-5 dilution) 40 or lower

8. Apply a complete fertilizer at time of bud initiation. Heavy watering and frequent light fertilizing will make chrysanthemums grow.



Uniform Growth Is The Result of Good Soil Management

FERTILIZERS

Soil structure is the key to soil fertility. The response of chrysanthemums to fertilization depends upon a favorable soil structure. It is known that plants require nutrients, water and air for growth. Good soil structure will provide proper air and water relationships. Therefore, it behooves us to give proper attention to the soil before starting the crop. Good open soil is a necessity.

Feeding

Chrysanthemums do much better right from the start if the soil is not too rich. Very often this crop will start off faster in new soil as compared to old soil that has been sterilized just because of the lower nutrient level in new soil. When using new soil, apply 5 pounds of superphosphate per 100 sq. ft. of area, plus a liberal application of manure before planting. Phosphorus moves slowly within the soil mixture. It should always be added before the crop is benched so that it may be mixed thoroughly into the soil. Liquid feeding with water-soluble fertilizers is fast becoming the popular method of applying fertilizer. Water soluble fertilizers are available in many different analyses and therefore you can apply the fertilizer your soil requires. Many growers are feeding soluble fertilizers through their automatic watering systems. Remember to apply weaker solutions of fertilizer more frequently rather than heavy doses less frequently. When using complete fertilizers in dry form we usually figure on using two applications at 2 pounds per 100 sq. ft. of area starting shortly after the plants have started to grow and ending when the buds are visible. Remember that the plant is the best guide to fertilizer requirements and that more mums are ruined by overfeeding than by nutrient deficiencies.

Levels of Nutrition

When using sterilized soil, the best recommendations to follow would be to analyze your soil from time to time. We have found that when the following Spurway nutrient levels are kept, good crops are the result. Nitrate nitrogen should be 10-25 p.p.m.; phosphorus 5-10 p.p.m.; potassium 20-40 p.p.m. and calcium near 200 p.p.m. To increase the nitrate level, feed one pound of ammonium sulfate per 100 sq. ft. of area, and to bring up the potassium, apply muriate of potash not to exceed 1 pound per 100 sq. ft. If phosphorus is needed, apply mono-calcium phosphate at the rate of 1 pound per 100 sq. ft.

A liberal application of calcium sulfate (gypsum), 5 pounds per 100 sq. ft., after steam sterilization will prevent injury to young roots. High phosphorus also reduces toxicity after sterilization.

In the cooler weather and shorter days of September, omit the nitrogen if the plants are growing freely. The mum assimilates more phosphorus and potassium during the time of bud initiation. Therefore, it is desirable to apply a complete fertilizer shortly after the buds are visible.

Soluble Salts

Soluble salts are chemical compounds consisting of an acid part (ion) and a basic part (ion). For example, common table salt, sodium chloride, consists of one ion of chloride and one of sodium. Chloride is an acid-forming ion, and sodium a basic or alkali-forming ion. The two combine in chemically equivalent quantities to form a neutral salt, Other common acidic ions are sulfate, nitrate, bicarbonate and phosphate. Other common basic ions are calcium, magnesium, potassium and ammonium. Any basic ion may combine with any acidic ion giving rise to a great variety of salts.

All plant nutrients which are absorbed by plants from the soil or from culture solutions are absorbed in the form of salts or their constituent ions. All organic materials become "mineralized" through decay processes, and the nutrients in them are converted into salts before being absorbed by plants. Some salts contain plant nutrients and are beneficial in the small quantities required for plant growth. Others contain no nutrients. All salts are harmful beyond the small quantity required for plant growth. A little is bad, more is worse, up to the point where plants will be killed. Salts are found in most water and are applied as fertilizer. Improper watering may permit a concentration into the harmful range. Instruments called Wheatstone's bridges are available which measure total soluble salts in terms of electrical conductivity or conductance. Many laboratories of the Agricultural Extension Service are equipped with Solubridge instruments for use in assisting with soluble salt problems.

It has been found that when planting rooted cuttings, the Solubridge readings should not be higher than 40, while established plants do not withstand readings of 100 without showing some harmful effects. To remedy excess soluble salts, apply 2 to 3 gallons of water per sq. ft. and leach out this high salt content.



Gates Watering System

NEWEST METHOD OF LIQUID FERTILIZING

The benefits of liquid fertilizing have been clearly pointed out in the last several years. Pot plant growers in particular are finding it possible to feed much more often than they could afford to under the old system of applying dry fertilizer. Most growers heartily endorse liquid feeding, but usually find that it is a cumbersome procedure. Up until now much of the equipment available to the trade for injecting or proportioning fertilizer into a water line has either been undependable, too complicated, or too costly. The FERT-O-JECT is the first reasonably priced unit designed to inject fertilizers into a water line without cutting the water pressure. This unit, designed and developed expressly for work with fertilizers, is precision built, yet any grower can tear it down and reassemble it.

How Fert-O-Ject Works

Fertilizer is injected into the water line by positive displacement and does not use a diaphragm or complicated linkage. The FERT-O-JECT operates with an **Automatic** Flow Rate Anticipator. Regardless of the number of people watering or the volume of water being used, the correct amount of feed is injected into the system. The accuracy of the FERT-O-JECT is truly amazing. The unit automatically turns off when the watering is

Growers throughout the country are liquid feeding very weakly every time they water. This system was advocated by W. D. Holley of Colorado A & M several years ago and many growers in the Colorado area have been feeding in this manner. This popular system has been spreading rapidly, with other universities and authorities recommending its use.

Method is Practical

Perhaps the statement that most clearly emphasizes the practicalness of feeding weakly with every watering is: "The rate a plant uses water is the best available measure of its fertilizer requirements". A plant is constantly using fertilizer so it is therefore feasible to assume it is right to feed it constantly. In the winter months, plants are watered less and consequently receive less feed. Cutting benches, shaded areas, and cooler crops receive less water and therefore less feed.

Major results are observed in nutrient levels after such a method of fertilizing — mainly soluble salts drop and other nutrient levels remain very constant.

The labor involved in applying and watering-in dry feed, while not a major item, can be eliminated and at the same time a more dependable and a more uniform application of fertilizer will result.

The switch from a weak fertilizer to clear water can be made by simply turning one water valve.

The fact that fertilizer stands in the water lines scares many growers, but the solution is so weak that water systems twenty years old are not affected when a new unit is installed.

Application Rates

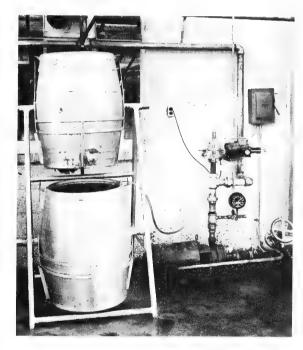
The amount of fertilizer used with the FERT-O-JECT will of course vary with the grower, locality, and crop, but many growers are putting 50 lbs. of ammonium nitrate and 30 lbs. of muriate of potash per barrel, which in

turn makes 10,000 gallons of weak fertilizer. All FERT-O-JECT, MODEL E's, are set at the factory at a proportion of 1:200. Any soluble fertilizer can be used with the system.

With the advent of satisfactory surface watering systems, liquid feeding regularly is even more important. These newer watering systems do such a satisfactory job of watering that more fertilizer is leached from the soil.

Growers have successfully grown chrysanthemums, roses, and carnations at the same range with one FERT-O-JECT and one fertilizer formula.

The simplicity and accuracy of the FERT-O-JECT. make it a popular piece of equipment with growers once they see it operate.



Fertilizer injector set up which injects liquid fertilizer concentrate into water line.



(Above) Portable Fert-O-Ject, Model PR, for pot plant growers. Proportion 1:35. \$235 F.O.B. Whittier, Calif.

(Right) Fert-O-Ject, Model E, for permanent installation seen in the large photograph above. \$435 F.O.B. Whittier, Calif.



PLANTING

Chrysanthemums grow equally as well on a raised bench or on a ground bed. The care is slightly different in that raised benches dry out more frequently during the summer and early fall months. It must be remembered that a good circulation of air is desirable, yet a direct draft is not advisable.

Planting Date

The proper date of planting will naturally vary according to when the crop is to bloom. For natural blooming we prefer to plant 3 or 4 weeks before the last pinching date. When flowering from August to October, we suggest you plant 3 weeks before the pinching date. In the year-round flowering schedule where no pinch is followed, we have given the advised planting dates in that schedule.

Planting Rooted Cuttings

Many florists are planting rooted cuttings directly into permanent locations. This not only reduces several handlings and production costs, but also produces a better-quality bloom. We fully realize that it is often an impossibility for all to treat their chrysanthemums this way. However, we have found that young, soft plants are superior to hard, woody plants. Never plant cuttings any deeper than what they were in the propagating media; too deep will cause stem rot. Water heavily after planting. If new white roots are not formed within the first 12 hours, something is not quite right.

Single-Stem or No-Pinch Method

Cuttings are planted and allowed to grow without pinching. It is an essential practice if 3 crops a year are to be realized in the year-round flowering schedule. Where crops are planted from September 15 to February 1, no-pinch method produces a superior crop, whereas a pinched crop is weaker and of poorer quality.

Light Intensity

When planting rooted cuttings into their permanent position, it is necessary to shade the glass or to put aster cloth directly over the young plants until they are established. When shading the glass, be sure that the material is applied lightly.

When growing quality chrysanthemums, the higher the light intensity or the least amount of shade over the plants during the growing season, the better the quality of bloom. Shade on the glass is only there for the convenience of the grower and not for the require-

ments of the plant. For cloth houses, the amber Saran is superior to the green because of more light under the amber covering. Naturally the plants require more water when growing under high light intensities.

It is recommended to shade the plants when flowers are about one-half open to prevent them from sunburning. When growing standards, a good practice would be to stretch muslin directly over the open blooms. This not only prevents sunburning but also keeps the blooms free from dirt.

Distance of Planting

For good quality pompons, we prefer to plant 7x7 inches or 8x8 inches pinched once, and thin the shoots to 3 per plant. The outside rows will support one more stem than the center rows in the bed. Nothing is gained by planting at a closer distance. Light intensity should be high at the base of the plant for quality blooms, and if planted too closely, we have lost the factor which promotes quality. Large-flowered varieties are generally planted 8x8 inches or 7x7 inches; this also applies to disbud anemone and single varieties.

For single stem, no-pinch method pompons should be spaced 4x6 and standards 5x6. When further spacing is used the sprays of the pompons become too large. A slightly closer spacing is recommended when growing conditions are more favorable. Mini-mums (fast disbuds) should be spaced 4x6 in the summer

flowering period and 6x6 in the winter.

PLANTING DISTANCE FOR NO-PINCH METHOD

4 x 6 inches Pompons . 5 x 6 inches Standards 4 x 6 inches (Summer) Fast-mums 6x6 inches (Winter) Fast-mums



Applying Additional Light to an Entire House

PINCHING

For a good number of years, the reason for pinching was to regulate the number of stems on the plant. In recent years, we have learned that in the case of pompons or singles the pinching determines the type of spray formation. With standards, pinching will determine the type of bud formation, whether it be a crown or terminal bud. Always pinch in the soft wood.

Pinching

Under the heading "Chrysanthemum Flowering Schedule" you will find the exact pinching dates for all planting dates. The table below will indicate the time to pinch after planting, according to various planting dates:

When planting Nov. 15 to Feb. 14 allow 4 weeks plant to pinch.

When planting Feb. 15 to Nov. 14 allow 3 weeks plant to pinch.

Time pinching standards will eliminate the formation of the crown bud and produce terminal buds which will in turn produce a much straighter flowering stem.

Pruning

Another important factor is to remove all shoots but 3 or 4 per plant. In a few instances only 2 shoots are allowed to mature. Allow more shoots to develop on the outside rows than on the center rows of a bed. When fewer breaks are selected, the planting distance should be closer.

Standards are usually pinched once to induce breaks so that they may be grown 2 per plant. The strongest breaks are selected and all others removed. It is well to pinch on the date suggested in the general list. Careful observation has shown us that neckiness with some varieties is eliminated by pinching on the respective dates. Singles and anemones are usually grown 3 to 4 stems per plant.

Condition of Plant

When pinching, remove only the soft growth, never cut into the woody stems as this will not produce the type of breaks you desire. It is our experience that it is best not to pinch until the plant has become well established in its permanent location. In all cases, it is better to have at least 8 to 10 inches of growth on the plants before pinching. (Photos below.)

If by chance you are delayed in planting, and your plants will be too tall, it is advisable to pinch early enough before benching so that the breaks will be several inches long at time of planting. Never pinch hard plants at the same time they are planted in the bench as a heavy loss may result. Better wait until plants are established and then pinch.

The pinching dates given after each week response will help you grow that variety to excellency. Remember that pinching is just one cultural point and will only function when all other cultural points are carried out properly.



Well-Established Young Plant



Top Several Inches Removed



Strong Breaks Resulting from Single Pinch

DISBUDDING

Large-flowered varieties produce side shoots in the axils of the leaves which should be removed very close to the base at regular weekly intervals. Disbuds are handled the same as standards.

Taking Bud

Taking bud means allowing the flowering bud to remain and removing all others and applies to standards and disbuds. The chrysanthemum usually produces two distinct types of flowering buds — Crown and Terminal. The first bud produced is called the crown bud and is distinguished by being surrounded by other lateral leaf buds. The second is the terminal bud and is surrounded by several flower buds. If the plant is planted especially early, a second crown bud may appear. In appearance, this second crown bud is exactly the same as the first.

The procedure of "Taking Bud" depends very largely on the variety. Usually the safest rule to follow when growing for natural bloom is not to select a bud on early or midseason varieties before August 25. If bud is selected too early, a large percentage of the flowers will be crippled. Good common sense must be used to determine the proper selection of bud.

The formation of the crown bud usually does not take place when pinching plants on the date of their response group. When following "Time Pinch," select the first bud that appears. This will result in straight stems without the dogleg growth that appears when second bud is taken.

The final selection of bud should not be made when the cluster buds are too small as this will very likely cause injury to the stem near the bloom. Likewise, it is not advisable to delay selecting the bud too long. Some growers like to leave an alternate bud until they are certain that nothing will happen to the one finally selected.

Disbudded Spray

The procedure in growing disbudded sprays is to wait until the crown bud forms, then remove all but three vegetative shoots. Later, when terminal buds appear, disbud each shoot similarly to the normal disbudding of standards. When the blooms mature, there are three flowers on each spray. In singles and anemones, the size of the blooms will be a trifle smaller than when they are grown as one flower per stem. Raise 3 stems per plant, similar to straight disbud. Varieties such as Goldsmith, Valencia, etc., can be grown as disbudded sprays.

Disspray

Thinning down the number of buds on a spray of pompons is called "Disspray." During certain seasons

of growth many varieties of pompons produce too many buds per spray. If allowed to develop many of the flowers will stick and have poor quality. Thinning these buds to 4 or 5 buds will produce the highest quality sprays. Each variety will have to be studied to determine which buds to leave. Some varieties are improved when just the center bud is removed while with others the center bud plus 3 or 4 others near the top are left and the other suckers down the stem are removed.

Premature Budding

Bud initiation can occur anytime during the spring months, whenever your temperatures in the greenhouses are consistently 60 degrees Fahrenheit or above, and the days are short enough to initiate bud setting. These conditions can occur anytime up until May 1st depending upon the variety and the locality in which they are being grown. Some varieties, such as the garden varieties and early shading varieties, require very little short-day treatment, coupled with high temperatures to initiate buds. This same tendency to set bud readily is what makes these varieties desirable for early shading and garden work. In order to prevent this premature setting of buds, these same varieties should be placed where they can be given additional light during the early spring months. Use 60-watt bulbs spaced 4 feet apart and 24 inches above the plants. Three hours of light during the middle of the dark period will prevent budding completely if the minimum intensity is 8-foot candles. The same treatment on either end of the night might not be effective if you have a particularly cloudy period which gives you extremely short day.



Left: Terminal bud surrounded by flower buds. Right: Terminal bud selected.

WATERING

The knowledge of proper watering is essential to success. Chrysanthemums produce extremely heavy foliage, and a great deal of water is required at the roots. And under ordinary conditions of bench culture, overwatering would be difficult. When grown in beds, more care should be exercised in watering. Some soils look wet on the surface but are very dry several inches below.

When planting rooted cuttings directly into their permanent locations, it is essential to water thoroughly to set the soil around the plant roots. We suggest double watering again when the soil gets on the dry side. By this time, the plants are established and regular watering should be followed. Keep humidity in the house by wetting down bench and walks.

When light is a limiting factor, the chrysanthemum plant is much more sensitive to overwatering and to soluble salt content than at any other period of the year.

Steam sterilization causes the soil to become more granular, and capillary movement of water in it is much slower than in soils not steamed. Cuttings planted in it cannot obtain water readily, and for this reason should be kept more moist than in soils not sterilized.

Keep soil moisture high after the buds of the chrysanthemum show color. Moisture is very necessary in the development of the petals of the bloom. If the soil is kept a little too dry small poorly developed blooms will result.

Surface Watering

During the past several years, many labor-saving devices have been developed. Surface watering is one that will save many hours of hand watering your chrysanthemum crop. The Greco Automatic watering system, Gates System, Gro-Hose, the Skinner Superior

nozzle and the White Showers nozzle are outstanding methods in use today.

When installing surface watering, check your water supply and the capacity needed to irrigate your area. It is advisable to have an engineer figure out your requirements.

Leaching

Many greenhouse soils are excessively rich, and chrysanthemums will not thrive in such a medium. If this is the case, the remedy is leaching with water. After the soil is sterilized, it should be leached. Use a Skinner line and allow it to run for hours if necessary.



Pipe in Middle of Each Bed Has Full Circle Nozzles for Surface Watering

TEMPERATURE VENTILATION

For inter-connected units or crops at different stages of development the most efficient and effective temperature recommendations we can make are cool 60° crops. The house temperature is run at a straight 60° level night and day, cloudy or sunny. This is the lowest, safest minimum. It is the night temperature that counts. Eliminating fluctuation promotes steady, gradual growth. Keeping day temperatures down encourages more ventilation with corresponding reduction in relative humidity. This promotes stronger, heavier stems. On very bright days temperatures will frequently go higher but this should be due to radiant heat from the sun rather than convective greenhouse heat.

Temperatures much above 90 degrees will act as a prohibitor. When the night temperatures are in the 90's, bud development is hindered. This is especially true when black-clothing in the hottest part of the year. To reduce high temperatures under the black cloth, it is suggested that the sides of the cloth be lifted after sundown and droppd again before the sun rises in

the morning. During high temperature periods, it is much better to apply the cloth later in the afternoon and allow it to remain later in the morning.

Temperature has been responsible for peculiar types of flowers. The Indianapolis varieties develop quilled and flat blooms when allowed to develop under low temperatures. Many varieties will develop black centers in the flower when grown under high temperatures and low light intensity.

Pink and bronze colors just do not develop when the temperatures are high in the early stages of flower development. High light intensity and low temperatures are conducive to good color development. Many of the newer varieties will develop better color during hot summer months than the older varieties. The pinking of white varieties and the bronzing of yellow varieties results as the flowers develop at low temperatures.

Closed, humid houses make for soft spindly growth. Good ventilation is a must to reduce relative humidity and pays significant dividends when correctly handled.

LATEST DEVELOPMENTS ON GREENHOUSE COOLING

The rapid manner in which millions of square feet of greenhouse have successfully been cooled in all parts of the country, clearly shows the outstanding significance of this new system in controlling greenhouse conditions.

With one year elapsed since the last GLOECKNER CHRYSANTHEMUM MANUAL first touched on greenhouse cooling, much has been learned about practical application in all areas of the United States. Up until this last summer most greenhouse cooling was done in areas of low humidity. Here compiled, as collected by your GLOECKNER REPRESENTATIVES, are various practical suggestions as told to them by growers from all parts of the country:

1. Baffles to properly direct air movement, prove of increasing importance. Polyethylene in greenhouse gables, from the gutter line to the ridge, is recommended every 30 feet when pulling lengthwise of the greenhouse. Likewise, when pulling across greenhouse, use baffles several feet up side wall running full length of greenhouse or suspended under the gutter several

2. Distribution of water and wetness of pad cannot be overemphasized. Dry areas in the pad greatly reduce the pad effectiveness. Oftentimes pads are wet only on one side and this should be corrected. Pads are sometimes too thick. One should be able to barely see

pad.

3. Keep pads free from dust, dirt, cottonwood seed, and accumulated salt from the water. Weekly washing down with a strong rose syringe will keep pads operating efficiently.

through a pad when standing with the face against

4. Growers in areas of high humidity have learned to withhold water from the pad at night while still circulating air. This eliminates any condensation of moisture that normally occurs.

5. Feeding programs have been greatly increased under air conditioning. Denver growers in some cases reporting they have doubled rate of feed.

6. A light shade on greenhouse roof is still recommended by most growers who were used to shading blooming stock. A light shade not only increased flower size under air conditioning, but also improved color. With cooler greenhouse temperatures, a light shade does not seem to lower production, but does improve auality.

7. Cheese cloth that has been sprayed with an insecticide can be suspended several feet from and enclosing the pad. This impregnated cloth not only will lower thrip infestation, but will filter out cottonwood seeds and other flying type seeds and will be much

easier to keep clean than the pad.

8. Wind breaks have been suggested for growers who occasionally have strong winds blowing directly into fans. By erecting a barrier 10 to 15 feet from the fan, much of the direct force of the wind can be

9. The use of a detergent as an additive to the water has in many areas improved the job of wetting. Also copper sulfate when added to the sump will retard pad rot. Small amounts are effective. One cup per 50 gallon sump per week will be adequate.

Greenhouse cooling by fan and pad method WILL NOT:

- 1. Cause more disease problems, but will ease the situation.
- 2. Be restricted to low humidity areas, but eventually will be used in all areas.
 - 3. Detract from the keeping quality of flowers.
 - 4. Be too costly to operate.

Combination systems, using both the fans and high pressure mist have been used in several localities this summer, but it is too early to tell whether this system will be practical. Work done along these lines to date is encouraging.

Cost figures have ranged from 12 cents per square foot to 40 cents, depending on how elaborate the job.



Excellent Summer Crops in Air Cooled Greenhouses

Blindness

Blindness is associated with temperature. When plants are grown below 50 to 55 degrees during the bud initiation period, many varieties will produce blind growth. In "Year-Round Flowering" we have found that chrysanthemums should be grown in a 60-degree temperature to insure good bud development. However, there are some varieties which require a higher temperature, and there are likewise varieties that will initiate their buds at a lower temperature; but it is safe to recommend a 60-degree temperature.

Petal Burn

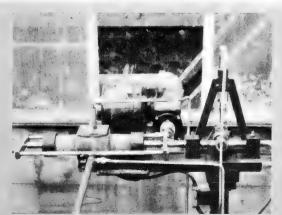
When blooming chrysanthemums during high temperatures and high light intensity, it is advisable to cover the beds with a cheesecloth stretched about 18 inches above the top of the developing blooms. This covering will also help keep dirt off the open blooms. Sunburn sometimes is confused with flower ray blight, which is caused by Botrytis. Botrytis is more abundant during periods of high humidity and low temperatures. Ray blight can be controlled by spraying with Parzate when the color shows and then repeating the application every 5 days.

Adequate moisture at the roots will help prevent petal burn during the hot summer days.

Cloth Houses

Much has been written about the construction and care of the cloth house. It seems that this subject is well taken care of, although there are a few new ideas that should be mentioned.

To grow quality stock, it is necessary to use some type of covering such as aster cloth, onion bag or Saran. Saran plastic shade cloth woven from flat, elliptical yarn is now available to give varying percentages of shade. Cloth can be obtained that will cast 46% to 90% of shade. The cloth that casts 46% shade is recommended for chrysanthemum culture. Saran will outlive copper screening.



Fert-O-Ject Model E

Plastic Houses

Many growers are erecting plastic houses used for the production of standard and pompon chrysanthemums. The lower cost of erection is the attractive feature. Installing the wet pad and fan system eliminates the costly conventional greenhouse ventilators. The usual width is 18 to 20 feet. The cost of erecting a plastic house is around 25-50 cents per square foot when the 4 mil polyethylene plastic is used. More durable plastics will raise the cost.

Shipping Flowers

Packing of cut flowers should be carefully studied. The most common error is over-crowding in the shipping boxes. Not securely fastening the blooms in the box will cause bruising of the petals. Cleating or sewing the stems to the box is essential. Cushion the blooms by placing enough padded paper at the bottom of the corrugated box and between the layers of blooms. Wrap the pompons with a loose wrapper. Chrysanthemum "Saf-Pak" is very helpful in shipping standards to market. One dozen blooms are held securely in one "Saf-Pak" holder.

Long distance shipments carry better if the cut flowers are packed dry. Reduction of temperature is accomplished by precooling the packed cut flowers.

Supports

With high labor costs, it has become necessary to eliminate some of the labor in supporting standards and disbuds. The old way of supporting with stakes or stringing each plant has given way to the box-wire and cross-string method of support. Turn-buckles placed near the end of the bed will keep the wires much tighter. Some growers are only using one layer of wire and cross strings and are gradually raising it as the crop grows.

Pompons are usually supported by the string and wire method similar to that described above. Two layers of wires are necessary to give the pompons good support. When growing out-of-doors or in cloth houses, heavier wire is necessary to give proper support, because moisture often collects in the open blooms causing extra weight.



Plastic house cooled with pad and fans

Aphids, or Plant Lice

All aphids are true sucking insects that insert their beaks through the surface of the leaf or stem and extract the juices from within.

INJURY. The feeding of aphids causes the plants to become sickly and stunted. The leaves curl inward, and when the flower terminal is infested, the blooms will be deformed. Certain varieties of chrysanthemums are more susceptible to attack than others.

CONTROL. Nicofume Fumigation is an easy method of controlling the black aphid but will do very little to control the green or straw-colored aphids. Lindane or Parathion is much more effective on the very resistant green or straw-colored aphids. Vapotone is also effective when used at higher concentrations. Malathion good for control of aphid and spider mite.

Chrysanthemum Leaf Miner

The larva or maggot disfigures and weakens chrysanthemum plants by mining in the leaves. It may do considerable harm to the crop, but is easily held in check.

INJURY. The young maggots burrow in the leaf tissue, leaving the upper and lower surfaces intact. The tunnels are irregular and winding. White blotches are thus formed, which later turn brown, and the leaves may die.

CONTROL. As soon as it is noticed that any leaves are infested, they should be picked off. **Parathion** or

TEPP aerosol bombs or sprays containing Lindane, Chlordane or Parathion, are very effective.

Chrysanthemum Midge

The chrysanthemum midge is one of the most serious pests with which the grower has to deal. Under optimum conditions, a little over a month is required to complete the life cycle from the egg to the adult. The eggs are reddish-orange in color and are usually deposited on the tender tips of the growth. Under favorable conditions, the eggs hatch in about three days. The larva wanders about over the surface of the leaf for a day or two before finally penetrating into the leaf.

INJURY. The midge attacks all parts of the plant but prefers the tender growth. If the infestation takes place when the plants are small, they fail to grow, although if the plants are well-developed when the infestation starts, the buds blight or are deformed, and the plant is rendered unsalable.

CONTROL. Lindane is effective against young and adults.

Parathion aerosols effective, but require frequent applications.

DDT effective against adults—repeated applications necessary.



Aphids



Gall Midge

Corn Ear Worm

The corn ear worm is a green to brown, nearly smooth caterpillar often mistaken for a cutworm when found within the buds or on the open flowers.

INJURY. It is very destructive to the opening buds, for it feeds on their petals and other parts, deforming if not entirely ruining the flowers.

CONTROL. If the attacked plants are blooming, spraying is out of the question, but thorough treatment with a 3 or 5% D.D.T. dust is recommended. After they have worked their way into the buds and are found to be feeding on the open flowers, hand-picking is the only remedy. Spraying the plants with Deenate 50W will control them before the color shows. Parathion fumigation will also keep them under control.

Cutworms

The larva is dull colored and from one to more than 2 inches in length. They are most active at night, and usually spend the day coiled up just under the surface of the soil at the base of the plant. They should not be confused with the corn ear worm, which cannot be controlled by poison baits.

INJURY. Cut worms obtain their food by biting out sections of the leaf, stem or bud. Various species attack different parts of the plant. The one that is most damaging climbs to the top of the stem and eats into the flower buds.

CONTROL. Those cutworms that feed on the foliage can best be controlled with Deenate 50W spray using 11/2 pounds to 100 gallons of water. Parathion has been suggested as a good control measure and is more effective as a spray.

Greenhouse Leaf Tyer

It gets its name from its habit of spinning light webs inclosing 2 or more leaves or tying together the parts of a single leaf. This caterpillar is very active, and when disturbed, will wriggle off the leaf, often backwards, lowering itself on a silk-like strand.

INJURY. When first hatched, the larvae eat out shallow holes on the under side of the leaf. As they grow, they enlarge these holes but usually do not cut through to the upper surface. The result is that the leaves become skeletonized.

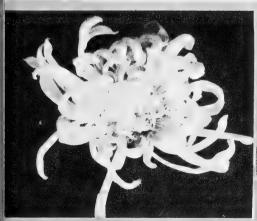
CONTROL. The best poison to control the larvae is Deenate 50W, either in the form of a dust or a spray. For liquid spray use 11/2 pounds of **Deenate 50W** to 100 gallons of water. Regular fumigations with Parathion will keep the leaf tyer under control. Malathion is also effective.

Mealy Bugs

Mealy bugs are small, sluggish, whitish, soft bodied insects, measuring up to one-quarter inch long, found in clusters on the undersides of the leaves or in the leaf axils.

INJURY. This pest sucks the juices from the stems and leaves, discoloring and deforming the foliage.

CONTROL. Parathion or Dithio are the most effective. Repeated applications necessary.



Corn Ear Worm Damage



Leaf Tyer



Mealy Bugs



Mites

Cyclamen mite and broad mite are often found on the same plants at the same time. Broad mite could pass through a complete generation in 4 to 5 days at 70 to 80 degrees, while the cyclamen mite will take 4 to 5 times longer.

INJURY. Infested leaves become deformed curl from the outside inward, and wrinkle so that pockets and pit-like depressions are formed. When the infestation is severe, the mites collect about the buds, causing them to blight. Oftentimes white varieties will show occasional red petals.

CONTROL. Endrin at 1-400 with DuPont Spreader Sticker 1-2000 gave excellent control. Kelthane also is effective. Systox used as a soil drench has been found effective in mite control.

Red Spiders

There are several species of red spiders that attack the chrysanthemum. They vary in color through yellow, orange and red. The body is oval in outline and bears 8 well-developed legs.

INJURY. Red spiders pierce the epidermis of the leaf and draw the liquid contents from the cells, causing the leaf to turn pale around the injured portion. They prefer to collect on the under surfaces of the leaves, which they cover with silken threads.

CONTROL. Aramite, Chlorobenzilate, Tedion, Kelthane, Parathion or Malathion spray or Aramite, Chlorobenzilate, Dithio, Parathion or Malathion bomb. P40 at 3 pounds per 100 sq. ft. after plants are well established; especially desirable for cloth house operators, will also control foliar nematodes. Plantfume 103 smoke generators and Fulex Parathion Fumigators are simple to use and very effective. Dithio is much safer than other insecticides when used on open flowers. Alternating the insecticides will very often give better control.

Symphylids

Symphylids are small white creatures about one-eighth to three-sixteenth inches long. About 40-60 days are necessary for the completion of the life cycle.

INJURY. Symphylids destroy the fine root hairs and small rootlets, thus stunting the plants and often killing them outright.

CONTROL. Complete control can be obtained with Lindane applied to the soil. Lindane can be applied to the surface of the soil either as a dust or as a wettable powder in a convenient amount of water. Application can be made when plants are in the bed, but best results are obtained if the insecticide is worked into the soil prior to planting. Use Lindane 25W at the rate of 8 ounces per 1000 ft. or 1% Lindane dust at the rate of 10 pounds per 1000 sq. ft.

Sowbugs

INJURY. Sowbugs often become so plentiful in the greenhouse that they eat the newly-planted cuttings at the base.

CONTROL. Any of the many poison baits will give partial control, but a complete spraying with **Deenate**50W under the benches has given excellent control.



Mite Injury

Red Spider Injury



Symphylid. Above, adult — below, eggs and young

Tarnished Plant Bugs

The tarnished plant bug or sting fly comes into the greenhouse through open doors and ventilators in late summer or early fall and does considerable harm to this crop. Chrysanthemums growing in the open are frequently affected. Varieties such as Mary L. Hall and Sea Gull are attacked to a greater extent than other varieties.

INJURY. It has sucking mouth parts and obtains its food by inserting its long, slender beak into the plant tissues and sucking up the contents of the injured cells, apparently injecting saliva, which causes the death of the tissue in the immediate vicinity. The stem is often slightly bent, and the terminal growth is malformed because of this injection.

CONTROL. Early morning spraying or dusting with any of the pyrethrum materials will kill those bugs that are present but this will have to be done each day for complete eradication. Deenate 50W and Malathion have been giving fair control, but again these insecticides are best used as a contact. Parathion fumigation will control this insect in the greenhouse.

Termites

Termites are not ants, though often called white ants. The food of termites is wood or cellulose. Soil inhabiting forms are the most common in the greenhouse.

INJURY. Termites sometimes injure chrysanthemum plants by working up the center of the plant and

hollowing out the stem. This injury will eventually kill the plant.

CONTROL. Clean up all wood debris in soil. Replace old wooden benches. Keep wooden bench supports from direct contact with the ground.

Thrips

The chrysanthemum is usually attacked by one or more species of thrips. These small, narrow-bodied, active insects which range in color from yellow to brown or almost black, injure both the leaves and the blossoms. Thrips are a real threat to Florida mum growers,

INJURY. Thrips have mouth parts that are fitted for piercing and scraping the leaf surface and for sucking the juices and other cell contents. The upper surface of the foliage is covered with whitish blotches, while minute black specks appear on the lower surface. Unless a constant watch is kept on the plants and control measures are properly executed, thrips are capable of causing severe injury within a short time.

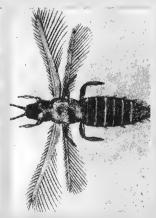
control. Deenate 50W used at the rate of I pound to 100 gallons of water is a very effective control. Other insecticides containing Lindane are also recommended. Parathion will control the chrysanthemum and onion thrips. Regular dustings or spraying are necessary where infestation is heavy. Dieldrin is also very effective.



Tarnished Plant Bug



Thrip Injury



Adult Onion Thrip

Pests and Their Control

Foliar Nematode

The spread of this pest has been very rapid in recent years owing to the increased trade in chrysanthemums and the ease with which the nematode is transported in plants and cuttings. Too few growers have become familiar with this pest, and consequently no effort has been put forth to control it.

SYMPTOMS. The leaves attacked become blotched, turn at first greenish-yellow, then brownish, later gray and finally black until the entire leaf dies and hangs down on the stem. Under conditions of high humidity both in the open during a wet season and under glass due to excessive watering, the spread of the pest may be extremely rapid.

CONTROL. P40 applied at the rate of 3 pounds per 100 sq. ft. has given good control. Wait 2 to 4 weeks after benching before applying. It is better to apply **P40** in 2 applications, 11/2 pounds each time, 7 to 10 days apart. The latest findings show that foliar nematodes can be controlled with Parathion either as an aerosol or liquid spray. Systox emulsion applied as soil drench 2-4 weeks after planting is effective.

Diseases and Their Control

Bacterial Stem Rot

SYMPTOMS. Cuttings may appear healthy although infected, grow well up to 8-12 inches high when the stem becomes soft and off-colored. Pith is jelly-like or lacking in such stems. Tops of plants then turn black, exude drops of liquid, and the stem often splits. Develops at high temperatures (75-90 degrees). Often shows up after the plants are pinched.

CONTROL. Remove and burn immediately all affected plants. Wash hands thoroughly after handling plants. Steam infested soil before replanting. Avoid dips for cuttings.

Collar Rot or Stem Rot

teaf-stalks into the

basal leaves, (Spring)

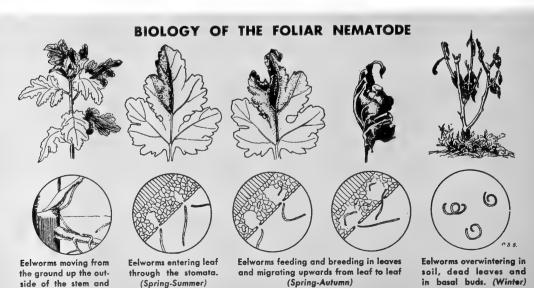
SYMPTOMS. The area of stem just at the soil level will show dark colorings first. The entire stem will be girdled, and eventually the plant will turn yellow and die. Usually caused by the common dampingoff organisms such as Rhizoctonia, Fusarium or Pythium. More prevalent when temperature and humidity are high.

CONTROL. Do not plant cuttings that have been affected with damping-off. Remove all affected plants when noticed. Do not keep the soil too moist. Run a lower humidity if possible. Plant cuttings no deeper than depth they were in propagating media, as too deep planting will hasten development. Have soil well prepared, as compact soils will also encourage trouble. Terrachlor, Parzate, or Fermate drench.

Mildew

SYMPTOMS. Whitish powdery growth on upper sur-

CONTROL. Spray at regular weekly intervals with a good wettable Sulfur, 11/2 pounds per 100 gallons of water to which a good commercial spreader has been added. Spray with Mildex 4 ounces per 100 gallons of water plus spreader whenever disease appears.



Diseases and Their Control

Ray Blight or Flower Spot

SYMPTOMS. The petals first show little spots and then the entire petal begins to rot. May be caused by Botrytis or Ascochyta. Botrytis is spread primarily by splashed water. Ascochyta is primarily a disease on outdoor crops.

CONTROL. It is controlled by lowering humidity or spraying plants with Parzate when they show color. Spray with Parzate one ounce to 4 gallons of water plus one-third teaspoonful of Du Pont Spreader Sticker on the flower from below and above as soon as color shows and continue at 5-day intervals. Orthocide 50W one ounce to 4 gallons of water plus spreader used as a spray similar to Parzate was found a good control. An electric fan, placed above the plants will circulate the air sufficiently to reduce disease. C.M. 19 when applied every four days will control Botrytis without leaving a deposit on the foliage.

Root Knot Nematode

SYMPTOMS. The nematodes or eelworms bore into the roots of the plants and cause knots or galls to develop on the root systems. As a result the plants are weak, yellowish and stunted in growth.

CONTROL. Steam sterilization of the soil is the most effective. MC 2, Vapam, VC 13, D-D, EDB and Nemagon are chemical soil sterilizing materials that have given good control of root knot nematodes.

RUST

SYMPTOMS. Chocolate brown powdery pustules on lower surface of the leaves.

CONTROL. Parzate, one ounce to 4 gallons of water is most effective.

Septoria Leaf Spot or Leaf Blight

SYMPTOMS. Distinct circular spot on the leaves. These are greyish-brown in color and become brittle in the center. Affected leaves may turn yellow and die. More prevalent in the open. Some varieties are more susceptible than others. Sea Gull is very susceptible.

CONTROL. When cuttings are received, dunk the tops into Fermate (2 tablespoons to a gallon). Spray the plants with Parzate one ounce to 4 gallons of water plus one-third teaspoonful of Du Pont Spreader Sticker every 10 to 14 days. Cloth house mums should be kept covered until the buds can be seen.

Verticillium Wilt or Seidewitz disease

SYMPTOMS. Margins of leaves turn yellow and eventually wilt or dry up. This begins at base of plant and works up the stem. May affect one side of a stem or plant more than the other. No distinct spots, Varieties vary in resistance to this disease.

CONTROL. Verticillium wilt can be avoided by purchasing our disease-free cuttings produced from cultured stock. It is also necessary to plant only into sterilized soil.



Dodder Growing on Mums



Septoria Leaf Spot



chrysanthemum manual

Pests and Their Control

Viruses

The word "virus" is being referred to by the medical profession as well as by the florists, and a short explanation of virus should prove of interest.

Viruses of the chrysanthemum are considered to be infectious; that is they can be transmitted to a healthy plant only by contact with an infected plant. They are not carried in the soil, water or air as are other diseases caused by fungi and bacteria.

The virus particles cannot be seen by the most powerful microscopes. Most of them will pass through bacterial filters. They respond like living organisms. They are always present in the sap of diseased plants and can be transmitted to a healthy plant through wounds or by mechanical means. The chrysanthemum is known to be affected with 5 viruses, namely yellows, Aspermy, rosette, mosaic and stunt. Stunt is the only one that has caused much concern. It has been found that aphids as well as mechanical handling will cause stunt to spread.

Once a plant is infected with a virus, it usually always remains affected. To define a virus, the following is as good as any: A virus is a protein which requires the presence of living cells for multiplication and it causes changes in the structure and functions of living

Combination Sprays

At times it is more economical and convenient to mix two or more sprays and apply them in one operation. Before such mixtures are prepared, the grower should be sure no reaction harmful to the plants will occur, and that the efficiency of the separate ingredients is not reduced. Consult your State Entomologist or Plant Pathologist for information on combination sprays for specific crops.

A good combination spray for chrysanthemums which will control most diseases and insect pests, can be made with Lindane, Parzate, DDT and Vapotone. Details on dilutions are as follows:

Material		Amount to Make	
Water	100 gallons	20 gallons	3 gallons
DuPont Spreader Sticker Lindane Parzate Deenate 50W *Vapotone	6 oz. 1 lb. 1½ lbs. 2 lbs. ½ pt.	2 tablesp. 3 ounces 5 ounces 6 ounces 31/2 tablesp.	1 teasp. 1½ tablesp. 2 tablesp. 3 tablesp. 1½ teasp.

To prepare: (1) Measure out spreader and dilute in small amount of water. (2) Fill tank with required water and add the diluted spreader and stir. (3) Take out a small amount in jar, add the proper amount of the Parzate and shake vigorously until all the powder is thoroughly wetted. (4) Pour this mixture back into the tank, preferably through a fine screen or cheesecloth and stir. (5) Measure out Vapotone and dilute in small amount of water and add to the tank. Keep stirring or keep agitator sunning while adding the materials.

*Parathion, Aramite, Endrin may be used in place of Vapotone in this combination spray.

MATERIAL AND AMOUNT

(per 100 gallons of water for spraying) 2 pounds 15% Aramite wettable powder pound Captan wettable powder pound Chlordane 50% wettable powder 1 pound 25% Chlorobenzilate wettable powder 2 pounds 50% DDT wettable powder pound Dieldrin 25% wettable powder pint 25% Dimite emulsifiable solution 1 quart Endrin emulsifiable solution 11/2 pounds Fermate wettable powder l pound 25% **Lindan**e wettable powder 1½ pints 50% Malathion emulsifiable solution 2 pounds 25% Malathion wettable powder 11/2 pounds 15% Parathion wettable powder 11/2 pounds Parzate wettable powder 1/4 pint 40% TEPP emulsifiable solution 1/2 pint 20% TEPP emulsifiable solution 1 to 11/2 pounds 25% Kelthane wettable powder pint 25% Kelthane emulsifiable solution pound Tedion 25% wettable powder 1 pound Terraclor 75% wettable powder



CHRYSANTHEMUM VARIETY DESCRIPTIONS

In the following list (pages 105-144) New Varieties for 1959 are enclosed in a box. These new varieties will not be available before April 1, 1959.

WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Description Flowering Date Price		Description	Normal Flowering D		
		7-WEEK GARDEN V	ARIETIES (Pin	ch July 6)			
OSTOSA		Sept. 25 \$-2	AVALANCE	iE .	Oct.	5 S-1	
		mpon on a semi-dwarf plant. good addition to the spring	Large deco	Large decorative. Tall. Flowers on early crown buds.			
garden pots.			HORIZON		Oct.	5 S-3	
CHRIS CO	LUMBUS	Oct. 1 S-5	Intermediate	Intermediate white pompon. Outdoor cut flower.			
		Short, compact and prolific.	BENORA		Oct.	8 S-2	
for 3" pot		ring pot blooming. Also tops Oct. 1 5-1	Intermediate	Intermediate pompon. White with ivory centers. A real improvement over Chris Columbus for durability.			
White spoo	n decorative. A prolifi	c and responsive variety well	MAESTRO		Oct. 10	O 5-1	
	ing form that also cre	pht and no shade treatment. eates demand as an outdoor	White pompon. Dwarf, compact growth. Excellent for borders and spring pot plants.				
LARRY		Oct. 1 5-3	CLASSIC		Oct. 10	O S-2	
	e paper-white pompon	. Compact short habit defines	Small white	Small white semi-formal pompon, Outdoor cut flower.			
			SILVERPLAT	E	Oct. 1:	2 S-1	
	•	s is tops uniony the 7-week	White decor	White decorative. Outdoor cut flower and spring pot plant.			
	a high quality pot variety suitable for May and gain in October. This is tops among the 7-week oots. 8-WEEK VARIETIES		White decor	rative. Outdo	or cut f		

8-WEEK VARIETIES	(Pinch July 13)			
PILGRIM Oct. 15 S-1 Intermediate pompon. Clear white. Temperature tolerance of Chris Columbus. Improving that variety in all respects. Spring pot plant program. Durable compact garden variety.	GARDENIA Oct. 15 \$-3 Large white decorative, Compact and responsive, Vigor improves Ostosa. Pot plant programs March to early October. Prolific and showy garden variety. Benefited from disbudding.			
BLIZZARD Oct. 15 S-3 Small productive formal pompon. Clear white. Tolerates 54°. Spray programs May to Oct. Cloth house July and Aug.	NORONA Oct. 15 S-1 Small ivory white solid pompon.			
CALIF. WHITE DAISY Oct. 15 S-2 Intermediate pure white single. For the very early cloth house. Very temperature tolerant. (Kimoto's White).	PRISTINE Oct. 20 \$-6 Intermediate pure white pompon. Cloth house July to Sept. Greenhouse April to Oct.			
Paper-white formal pompon of intermediate size. Recommended in the greenhouse spray program from May thru	SHIBUYA WHITE Oct. 20 S-2 Intermediate white daisy. West coast variety.			
October. Satisfactory as an outdoor cut flower for natural flowering. Sold under agreement only	SILVERTONE Oct. 24 S-2 Intermediate white daisy. Similar in habit to Reward and Buckskin. Vigorous and productive. Fine high temperature per-			
IRENE Oct. 15 S-1 Small pompon.	formance. Tolerates 54°. Cloth house July to Sept. and green- house May through Oct.			







Hoeckner chrysanthemum manual

WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price

9-WEEK VARIETIES (Pinch July 20)

POPCORN

Intermediate white pompon, Light pink at low temperatures. Outstanding production. Very good June through Sept. under glass, or in the cloth house from July through Sept.

Oct. 25

WHITE POPCORN

White sport of Popcorn. No trace of pink in flower at low temperatures therefore may be flowered earlier and later in spring and fall.

MONTY Oct 25

Large white decorative, very good as pot plant, recommended year round through the South. March through Dec. in the

SILVER BOW

Large white formal disbud pompon. Responsive and productive in the fast disbud programs. Displays a high degree of tolerance to summer greenhouse temperatures.

KEEPSAKE

White pompon, tall with good spray formation, recommended March through Oct., will be suffused with light pink during early Spring and late Fall.

WHITE KEEPSAKE

Intermediate ivory pompon. It is devoid of pink tinges at low temperatures. Will tolerate 56°. At high temperature finish, more ivory than Keepsake.

Small pure white pompon. Formal and distinctive for May through Oct. in the greenhouse, Aug. and Sept. in the cloth house.

Oct. 25

Intermediate white pompon. Withstands heat well. Greenhouse June through Sept. Requires high light intensity.

Medium sized formal pompon disbud. Its dwarf habit makes it a first class pot variety for mid-March thru mid-November. A relatively fool-proof pot variety during high light intensity periods of the year. Far more efficient than Granite State and will easily average 5 breaks per plant, Intolerant of winter low light environments.

CRYSTALLITE (X)

Intermediate formal pompon. Paper-white. Responds earlier than Keepsake under high temperature summer conditions. Does not tolerate low temperatures for initiation. Response is uniform and rapid at 60° or over. A high caliber and efficient variety from May thru mid November as a natural spray in the greenhouse.

Sold under agreement only

VESTA Oct. 25

A white button pompon for summer and early fall flowering. Best during the long day period of the year.

Oct. 28

Intermediate pompon.

MEMENTO Oct. 30

Intermediate chalk white single with green discs and durable petals that retain their original form into maturity. Reliable cloth house variety July through Oct. and in the greenhouse from May through Oct.

SILVER CLOUD

Intermediate white single, flower April through Oct. under glass.

HALO

White Daisy for high temperature periods in the greenhouse.

SEA GULL

Intermediate ivory pompon.

ALASKA Nov. 1

Intermediate white anemone with white cushion. Temperature tolerance of Shasta. Productive, responsive and versatile. Spray programs from late April to early Nov. A greater degree of cushion development than Shasta in summer temperatures.

WHITE DOTY

Large Pompon, disspray and disbud.

New Variety

New Variety Growers Agreement



(SA) Growers Agreement

AVAILABLE APRIL 1, 1959



Crystallite



Stardust



WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal Normal Variety Description Flowering Date Price Variety Description Flowering Date Price

10-WEEK VARIETIES (Pinch July 27)

SNOWCLAD

Nov. 1 Medium, paper-white disbud. Medium treatment. Flowers a week earlier than either Chalk Cliff or Oregon and develops superb quality during the winter months when Wilson's White is questionably soft. Bud initiation will take place in temperatures as low as 52°. Has class, substance, and is tolerant to

high temperatures.

THISTLEDOWN Nov. 1 Medium to small novel white decorative pompon. An improved Snowdrift flower. Natural spray programs from May thru

CAMILLE BAUMANN

Medium to large single disbud. White spindle on tubular ray petals. Novel form that will enrich variation in fast disbud programs from April thru mid-December. Especially valuable to retail growers who are seeking new and unusual beauty.

SNOW CRYSTAL Medium to large ivory white spider disbud. Fully double form.

Feathery spooned petals. Strong habit, and wiry stems make it an exclusively novel pot variety useable the year round. Best with tall treatment. Easily averages five uniform breaks from a soft pinch. A variety that will create interest.

FREEDOM

Intermediate pure white single. Fine green eye. Best flowering season in the cloth house is Sept. and Oct. and under glass Oct. and Nov.

WHITETOP

Intermediate chalk white decorative. Productive and dependable. Top notch white. Greenhouse April to Nov. and in cloth house July through Oct.

SUPREME WHITETOP Nov. 5

Large white decorative. Whitetop sport with increased size, less reflexing and improved substance. Stem quality and production also somewhat better. Disspray procedure with high summer temperatures always improves the uniformity of response of the Whitetop family.

New Variety (X) New Variety Growers Agreement

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TIPTOP

Nov. 5 A distinctive form mutation from Whitetop. The petals are completely tubular. Valuable in the same periods as Whitetop.

Nov.

An unusually beautiful sport from Whitetop. Petals are deeply serrated or feathered in a manner similar to Snowdrift. Improved vigor and response. Chalk white with smart green eye. Feathertop is not a novelty. It will increase the demand for white in all periods and areas where Whitetop is grown.

Large chalk white pompon. Tall vigorous growth. Color clarity of Whitetop and Belray. Best year around disbud. When not disbudded, suggest adding one additional long day week for best spray formation. Recommended to grow as sprays from April to Dec. and in the cloth house Aug. through Oct. Temperature tolerance of Whitetop. Tolerates summer temperatures well. Best 10-week white disbud.

Intermediate white pompon. Takes high temperature well.

Flower from June to Oct.

ENCORE Nov. 5 Intermediate pompon. Pinks at low temperatures. Requires 60° minimum for bud initiation. Flower under glass from June to natural season and in the cloth house from mid Aug. to early Oct. Superb form and rigid growth.

WHITE ANEMONE 5-1

Large anemone, disspray and disbud.

WHITEHOUSE Nov. 5 Intermediate white anemone. Breaks vigorously and thrives

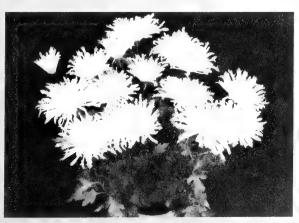
best with high temperatures. Recommended for pots from May to Nov. A summer Little America for pots.

PING PONG

Nov. 5 Small formal pompon. Clear white. A very hard, round and durable flower. Strong, rigid stem and terminal spray. Does not shatter. A large Pinocchio. This will be a shipper's delight. Chalk white, ball type poms as attractive as Ping Pong are

always in steady demand.

(A) Growers Agreement



Snow Crystal



Ping Pong



WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

10-Week VARIETIES (Cont'd)

WHITE MENSA Large ivory single.

for pots.

CHALK CLIFF Nov. 10 Large chalk white decorative pompon. The answer to a white Portrait for pots the year round, using MEDIUM TREATMENT. Foliage, habit, and flower form provide a striking resemblance. Also has a more vigorous breaking habit, A versatile and

beautiful white that will pay its way in any pot plant program. Intermediate decorative disbud. An ivory-white Bonnaffon seedling of excellent substance with a slight cream center and dimpled petals. Well adapted to either the fast disbud or pot plant programs from April thru December. TALL TREATMENT

PACESETTER Nov. 10 Intermediate pure white single, Best as sprays from April through June and from Sept. to natural bloom. Also grown some as a pot plant from Sept. to June.

ICE CREAM Nov. 10 Intermediate decorative with 3-4" diameters. White to cream depending upon temperature. A valuable addition to the fast disbud program from May to Jan. As large a disbud as Iceberg.

VISCOUNT 🏵 Large semi-anemone. Chalk white. A vigorous, productive and durable variety well suited to regular and fast spray crops. The substance improves Shasta and Alaska. It develops the vigor of Iceberg, and is the result of an objective to increase the durability and shipping quality of Shasta. Cushion development is small, cream-white in color, and at times, reverts to a daisy form. Readily classified as a practical, high temperature insensitive white anemone pom.

ILLINI IGLOO Intermediate ivory white pompon, Good for outdoor shading from July through Oct. Formal and durable, tolerates 54°. Recommended from April through Dec.

Nov. 10 Large Anemone. Tolerates 54°. Very dependable when grown in sterilized soil. Recommended as sprays and disbuds from April through Dec.

DYNAMO White Pompon. Excellent in natural season. Nov. 10

Intermediate pompon.

LITTLE AMERICA Nov. 10 Intermediate pure white anemone. Under glass Oct. and Nov. as sprays and as potted plants from Sept. to mid-May.

ICE FOLLIES Nov. 10 Large decorative. Chalk white. A very durable pot variety especially valuable in winter programs. While smaller than Oregon or Wilson's White it sets a new standard for uniform response, smart form and good breaking action. Combines the best traits of Snowclad and Chalk Cliff in the objective of a white Criterion.

ILLINI SNOWDRIFT Nov. 12 Novelty, intermediate, feathered decorative. Valuable in artistic arrangements. Grow as sprays from April through Dec.

STARDUST (Nov. 12 Formal white pompon of intermediate size. Establishes a larger and more shapely Keepsake form. Its smart formal form has strong consumer appeal. Productive and dependable from April thru November in both regular and fast spray programs in either greenhouse or cloth house. Tolerates 56° minimum.

11-WEEK VARIETIES (Pinch August 3)

WHITE TAFFETA

Nov. 15

Pure white sport of Taffeta. Recommended for March to May and in Sept. and Oct. programs.

New Variety (New Variety Growers Agreement

SCULPTURE

Large ivory white daisy. Recommended from mid-March through May and again in Sept. to natural flowering date.

(YA) Growers Agreement

AVAILABLE APRIL 1, 1959





Ice Follies



WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

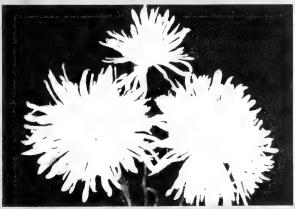
11-Week VAR	ETIES (Cont'd)
WHITE NORMA Nov. 15 S-1 Large Anemone. Best grown as disbuds from Nov. to early Apirl. White rays and yellow cushion.	NEVADA Nov. 20 5-3 Intermediate anemone. Chartreuse cushion.
SNOWFLURRY Nov. 15 S-1 A white button pompon. Larger than Pinocchio.	PRISCILLA Nov. 20 S-3 Intermediate clear white pompon. JUPITER Nov. 20 P
ILLINI STARFLOWER Nov. 18 S-2 Large semi-anemone spoon. A novelty in white for the retail grower. Disspray or disbud. SEAFOAM Nov. 20 S-1	Large decorative. Pure white. A vigorous spray variety well suited to regular and fast crops. Of Iceberg size and Belray color clarity. Temperature tolerance of Iceberg. Has all the traits that best describe it as an 11-week, pure white Heyday. Greenhouse and cloth house.
Intermediate ivory white pompon for natural season.	SURFSIDE Nov. 23 P
LONG ISLAND BEAUTY Nov. 20 S-3 Large anemone, yellow cushion. Best grown as fast disbud from Nov. to early April.	Large single. A clear white. Extra wide petals and green discs. Petallage has substantially more substance than found in either Illini Alba or Sculpture. A splendid co-partner to such varieties as Jubilation, Crackerjack and the Galaxies to be flowered
GRECO'S CARNATION Nov. 20 S-3 Intermediate white pompon. Petals are finely serrated and form somewhat resembles a carnation. Valuable for its natural	in spray programs from November thru March. Tolerates 56° minimum. Best grown disspray.
Thanksgiving season. Not suited to early spring programs.	ILLINI BOUNTIFUL Nov. 23 S-1 Small ivery pempon.
ERMINE Nov. 20 P Intermediate ivory-white disbud. Cream-eyed centers. A winter Iceberg for the fast disbud program from November thru April. Extremely tall on the regular schedule.	PARAMOUNT Nov. 23 S-5 Intermediate ivory white pompon. Recommended from Sept. through May.
JOHN BAUMANN Nov. 20 P Large paper-white spider. Duplex form. Partially spooned petals. A novel and efficient retailers item best grown in a fast disbud program from October thru May. An exceptionally fine winter performer in the North.	BELRAY Nov. 24 S-6 Large white pompon. Tall grower. One of the best large whites for spring flowering in the greenhouse in March and April and from Oct. through Dec. Also as fast disbuds during the same period.
HIGHBROW Nov. 20 S-5 Ivory white decorative. Very productive. Superb quality in late cloth house and in the greenhouse from Sept. to Jan.	CARRARA Nov. 24 5-3 Intermediate pure white decorative. A short variety that tolerates low temperatures, Bud development is retarded by high temperatures. Finish cool for Oct. through Dec. program.
12-WEEK VARIETIES	(Pinch August 10)
SILVERCREST Nov. 25 S-3 Small white formal pompon. Markedly improves the appearance and quality of Snowcrest. For flowering from mid-Oct. to April.	WHITE PRINCESS Nov. 25 S-2 Pure white button. Sport from Princess.



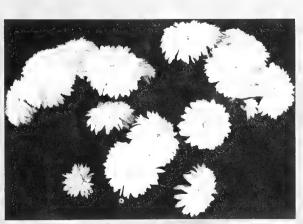








John Baumann



Jupiter



WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Flowering Date	Price	Variety Description	Normal Flowering Date Pri
		12-WE	K VAR	IETIES (Cont'd)	
WHITE LAD White sport	OY of Beautiful Lady. Dis	Nov. 25 bud.	S-1	CORDOVA Intermediate pompon.	Nov. 30 S
A productive	C E e white anemone for T	Nov. 25 hanksgiving.	S-2	memediale pompon.	
CHAMP	11.1	Nov. 28	S-3	FORTUNE	Dec. 1 S
Larger than Supreme, Re through Ap	disbud anemone. Gr Illini Glacier, appro esponse is uniform and ril 60° fast disbud p ell, acquires a chartre	paching the size of production high in Corograms. Cushion is	White ctober	Formal white pompon. An outsta and Dec.	nding quality flower for No
WHITE VAI	LENCIA	Nov. 28	5-3	ILLINI GLACIER	Dec. 1 S-
Large single Very high q and Dec.	e. Requires high temp juality when grown as	eratures for bud initial disspray or disbud in	tiation. n Nov.	Large anemone. Clear white with through Dec. and March and A initiation. Cool finish.	white cushion. Disspray Oc pril. Improves. Requires 60
		13-WEEK VA	ARIETIES	(Pinch August 17)	
SNOWSTORM Dec. 5 P A white decorative pompon of medium size. Represents continued advancement to improve quality, productiveness and		ACCLAIM Large formal type pompon. An to March 15.	Dec. 5 S-ivory white Corsair for De		
low tempera grams, Spea	ature tolerance for no cifically recommended	rthern winter pompo	n pro-	SPANGLES Small white pompon. A late whi	Dec. 5 S-
60° environi		arch. Fully tolerant t	o cool	NORTHWIND Medium to large pure white sing	Dec. 8 P
intensity and	CHANTRESS If and disspray anemount If 60° temperatures for the second shell If it is a smooth shell	or maximum clarity	Under	provement in vigor and producti ently available white singles for North, Useful in the regular gree December thru February.	ve capacity among the pre
ILLINI ALBA Intermediate	chalk white daisy. D	Dec. 5	\$-2	SNOWDROP White button pompon. Pink tinge	Dec. 8 S-
pink either f 56° for initic	rom low temperature a ation and development	or aging. Alba will to . Responses are depen	lerate	WHITE SNOWDROP Pure white sport of Snowdrop.	Dec. 8 S-
tormation a when it is tr	when lighted through nd height control is eated as a 14-week v	obtained with Illini	spray Alba	ILLINI STARLET Intermediate anemone. Improves clarity of color, best for Dec. bl.	Dec. 10 S- Garza in form, growth an
CAMEO Intermediate	ivory decorative.	Dec. 5	S-2	IMP. WHITE SUPREME Large anemone. Tall disbud. Fini	Dec. 10 S.







Illini Alba

Champ

WHITE POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

13-WEEK VARIETIES (Cont'd)

ICECAP .	Dec.	10	S-7
Intermediate chalk white pompon. Icecaj	comb	ines the r	espon-
siveness of Acclaim, the vigor and proc			
the formal beauty of Snowcap, Will initia			
although, equally as valuable in 60° pr			
extra vigor, best treated as a 14-week vi			vement
in white for December through mid-Ma	rch pro	grams.	

YUKON			D	BC.	10	5-2
Intermediate	chalk white	single.	Tolerates	56°		

SATELLITE				Dec	:. 13		S-2
Intermediate to March. 15	cream	white	pompon.	Spray	crop	from	Dec.

DOLOMITE Intermediate clear white pompon. Adds quality and color clarity to the Dec. season. Tolerates 56°.

SNOWCREST				Dec.	13	9	-4
Small pompon.	Distinctive	green	eye.	Sprays	from	Dec.	to
March 15,							

14-WEEK VARIETIES (Pinch August 24)

T	RENTON					Dec.	15	i	S-2
-	termediate	pompon.	Good	form	and	substar	ice	for	natural

SILVERSMITH Dec. 15

Intermediate pure white decorative. Fine sprays and production for Dec. to March 1. Tolerates 56°.

HEIRLOOM Dec. 20 Intermediate decorative.

SNOWCAP Dec. 15

Large formal pompon. When grown at a 60° minimum night temperature, this is one of the outstanding flowers available to the Dec. to March 1 program.

WHITE RIVIERA Dec. 15 S-1 Intermediate ivory decorative. Does not show pink tinges with low temperature finish. Must have 60° initiation and cool

finish. GARZA Dec. 15 Intermediate anemone.

WEDDING BELLS Dec. 20 A small to medium white formal pompon. Uniform and productive.

ELEGANCE Intermediate white decorative. Flowers naturally for Christmas. Clean growth with high production and good spray.

15-WEEK VARIETIES (Pinch August 31)

REVELATION Intermediate decorative. Excellent for late natural flowering with 50° finish.

SNOW Dec. 25 Intermediate pompon. Requires 60° for initiation.

Intermediate white pompon. Good form and substance.

ILLINI CASCADE Jan. Large clear white decorative. Tall, responsive. Finishes well at high 60° or low 50° temperature. A valuable addition to the northern winter program. Suggested as winter disbud.

ILLINI SNOWBOUND Jan. Large informal white decorative with cream center. Requires 60° initiation and 50° development.

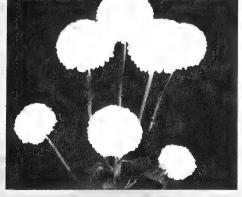
New Variety (SA) New Variety Growers Agreement

(A) Growers Agreement

SEE PRICE LIST PAGE 143

AVAILABLE APRIL 1, 1959





Elegance

Icecap





YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

7-WEEK GARDEN VARIETIES (Pinch July 6)

YEL. CHRIS COLUMBUS Oct. Intermediate lemon yellow decorative. Short, compact, and prolific. Top yellow garden variety for spring pot blooming. Also tops for 3" pot plant.

MOONLIGHT Oct. Intermediate sulfur yellow pompon. Short compact growth habit. For border and spring pot-plants.

Oct. 5 Golden buff daisy. Background garden variety and Oct. cut flower.

Intermediate bright lemon yellow pompon. Free flowering and responsive. More prolific than either Yel. Chris Columbus or Moonlight when grown as a spring plant. An early foreground garden variety.

CHAS. NYE Oct. 5 Large deep yellow pompon. Showy, prolific garden variety.

Oct. 5 Small deep lemon yellow button pompon. Good spring pot plant. An intermediate garden variety.

YELLOW SPOON Oct. 5 Intermediate light yellow spoon single. For garden and pot culture. Showy and artistic.

LEE POWELL Oct. 10 Large golden yellow decorative, Vigorous background and cut flower variety.

Oct. 10 S-1 GOLDRUSH

Dark yellow daisy. Cut flower variety.

Oct. 10 Small deep yellow pompon. Vigorous, upright habit. Fine cut flower growth. Outdoor cut flower and natural greenhouse programs.

BRIGHT FORECAST Very formal yellow pompon. Outstanding flower quality. Background for gardens and outdoor cut flower.

KINGS RANSOM Intermediate decorative. Golden yellow. Tops for yellow in no light — no shade spring pot programs. Prolific, strong in habit and medium height. Colorful and equally dependable as a fall garden specimen.

8-WEEK VARIETIES (Pinch July 13)

TOPFLIGHT Oct. 20 Medium to small yellow anemone. Regular and fast programs from May thru October, Tolerates 52° bud initiation temperatures and high summer temperatures for development.

YELLOW SILVERTONE Oct. 24 Intermediate deep lemon yellow daisy. Sport from Silvertone. Wide range of temperature tolerance. Valuable in early cloth house and high temperature greenhouse spray programs.

9-WEEK VARIETIES (Pinch July 20)

Sundial 🏵 Oct. 25 Intermediate feathered spider disbud. Deep lemon yellow. A pot plant companion for Snow Crystal. Shorter in habit, and a little smaller in size. Always responsively uniform. Prolific flowering variety with excellent foliage. A timely reinforcement to supplement variation within pot varieties.

OHIO STATE Oct. 25 Large, intense yellow decorative. Habit is ideally suited to pots. Breaks well with spread and fine foliage. Its fast uniform response, tolerance of high temperature and brilliant color add efficiency and form variation to the popular Yellow Delaware.



New Variety (New Variety Growers Agreement

(A) Growers Agreement





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Ohio State

Sunfire (Page 114)

S-3

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price

9-WEEK VARIETIES (Cont'd)

DANDY

GOLDFINCH Oct. 25 Small garden yellow button pompon with excellent flower quality. Greenhouse May 1-June 1; Sept. 1-Nov. 1, cloth house Aug. 1-Sept. 15. Oct. 25

Large yellow daisy. Intolerant of extreme heat. Greenhouse April 15-Nov. 1.

GOLDEN HERALD Oct. 25 Large decorative. Disspray or disbud April 15-Nov. 1; cloth house July 15-Sept. 15.

GOLD COAST Oct. 25 S-7 Intermediate formal pompon. Deep lemon. Greenhouse April 1-July 1; cloth house July 15-Oct. 1.

EARLY YELLOW DAISY Intermediate yellow single. Selection from Calif. Yellow Daisy that will mature 7 to 10 days earlier.

YELLOW DOT Oct. 25 **S-1** Small pompon. Two-tone with golden bronze eye.

HAPPINESS Large golden yellow single having broad, flat ray petals. In the greenhouses May 1-Nov. 1; cloth house July 15-Nov. 1. This variety is a combination of beauty, productivity and versatility.

SUNUP Small deep yellow pompon. Withstands high temperatures and heavy cropping. Greenhouse May 1-Nov. 1; cloth house Aug. 1-Oct. 1.

YELLOW ARCADIA Oct. 28 Intermediate lemon pompon.

Oct. 30 Intermediate intense yellow single. Greenhouse May 1-Nov. 1; cloth house Aug. 1-Oct. 1.

GONDOLA Oct. 30 Intermediate yellow daisy. Large flower similar to Starbright. Greenhouse May 1-Nov. 1.

YELLOW HALO Sport of Halo. Intermediate single, deep lemon yellow. Greenhouse May 1-Nov. 1.

New Variety New Variety Growers Agreement



May 1-Nov. 1; cloth house July 15-Nov. 1.

Intermediate yellow pompon. The most temperature tolerant among the 9-week yellow pompons in the manual. Will initiate and develop at 56°. Greenhouse May 1-Nov. 1; cloth house July 1-Nov. 1. Adaptive to a wide range of environments.

STATESMAN Small intense yellow pompon produced in abundance on wellformed sprays. Valuable summer greenhouse variety because of its unusual tolerance to high temperatures. Greenhouse

BRILLIANCY M Nov. An Aztec yellow intermediate single contrasted with accenting green discs. Recognized for rigid stems, a well balanced spray formation, superb flower placement and uniform response throughout its season of use. Grow as a natural spray in greenhouse from May thru mid November.

YELLOW DOTY Nov. 1 S-1 Large deep bronzy pompon, Disbud.

STARBRIGHT Nov. 1 5-2 Large deep lemon single. Dissprays greenhouse April 15-July 1 and Oct. 1-Nov. 15.

YELLOW DAISY Nov. S-1 Intermediate lemon yellow single.

YELLOW SEA GULL Intermediate deep lemon pompon.

SUNRAY S-3 Small anemone. Productive and responsive.

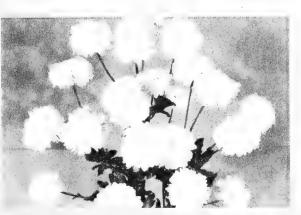
Nov.

Large yellow daisy. Good form and an unusually clear yellow color. Greenhouse May 1-Nov. 15; cloth house July 15- Oct. 1.

(YA) Growers Agreemer



Sundial



Fanfare (Page 115)

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	#MET	Normal Flowering Date	Price

10-WEEK VARIETIES (Pinch July 27)

BA			

Intermediate lemon pompon.

YELLOWTOP

Nov.

Bright lemon yellow sport of Whitetop. Same habit and vigor. Achieves maximum value in cloth house programs Aug. 1-Nov. 1. Greenhouse April 1-Nov. 15.

GOLDTOP (Y)

Intermediate pompon. Deep lemon yellow. A recognized color improvement over Yellowtop sporting from Whitetop. The deep, smooth color is enhanced by a pronounced green eye. The flower is more ball shaped than Yellowtop and substance is improved. A preferred replacement for greenhouse and cloth house programs.

AZTEC

Nov. 5 S-2

Intermediate deep yellow daisy. Greenhouse May 1-July 1 and Sept. 15-Nov. 1.

MARY HALL

Nov.

Intermediate deep lemon pompon. Tolerates high temperatures well. Greenhouse May 1-Nov. 15; cloth house July 15-Oct. 1.

CRESCENDO

Nov. 5

Large yellow pompon. Outstanding variety for high temperature periods. Tall. Greenhouse June 1-Oct. 1; cloth house Aug. 1-Oct. 1. Tinges bronze at low temperature finishes.

CONSTELLATION

S-2

Intermediate decorative. Brilliant yellow.

YELLOW BEAUREGARD

Nov. 5

Intermediate pompon. Clear golden yellow at all temperatures. Temperature tolerance of parent variety. Greenhouse May 1-Nov. 15; cloth house July 15-Nov. 1.

YELLOW ICEBURG

Nov. 5

Clear lemon yellow sport from Iceberg. Spray programs May through mid November are always benefited by early center

New Variety (New Variety Growers Agreement

GOLDBERG Y

Large pompon. Golden yellow sport from Yellow Iceberg.

Definite color intensification over Yellow Iceberg. Flower is harder, more double and slightly smaller. Smart form and sharp response are coupled with vigorous, dependable production. An essential variety for all regular and fast spray programs.

GOLDEN BANTAM

Nov.

Small pompon. Deep golden yellow. Its heavy production without sticking at high temperature; its superb form retention coupled with intense color and durability rank it without peer among small yellow poms. Vigorous habit makes it adaptable to both regular and fast crops in cloth house and greenhouse. A gem in its class and a real achievement for its recommended period.

LUMINARY W

Nov.

Intermediate yellow disbud. Decorative form. A Bonnaffon seedling that performs at its best in pots during the warm periods of the year from mid June thru October. MEDIUM TREATMENT. When Bonnaffon DeLuxe stalls in the summer, switch to Luminary,

SUNFIRE M

Nov.

Medium to large single. Dark yellow. A top performer in either fast or regular spray programs from May thru mid November. The combination of Sunfire's improved traits enables it to compete favorably with the present varieties of Happiness, Sauterne, and Aztec.

LUXURY

Nov.

Large decorative. Clear yellow when restricted to high temperature flowering. Superb fast disbud May 1-Nov. 1. Disbudded spray program May 1-Nov. 1; cloth house Aug. 1-

Growers Agreement

AVAILABLE APRIL 1, 1959



Golden Bantant



Luminary



YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

10-WEEK VARIETIES (Cont'd)

YELLOW SHASTA Nov. 10 YELLOW PACESETTER Nov. 10 Large light lemon yellow anemone. Greenhouse April 1-Jan. Lemon yellow sport of Pacesetter. Greenhouse April 15-July 1 1; cloth house Aug. 1-Oct. 1. and Sept. 15-Nov. 15; cloth house Aug. 1-Nov. 1. CREAM SHASTA Nov. 10

Beautiful color addition to the shasta group. Nov. 10 5-3 Small pompon. Intense yellow, bright green eye. Hard, ball of one long day week prior shade. type. Durable, prolific and dependable. Greenhouse March

15-Nov. 15; cloth house Aug 1-Oct. 1. YELLOW IGLOO YEL. ILL. SNOWDRIFT Nov. 10 Intermediate deep lemon yellow pompon. Selection from Illini Igloo with same habit and temperature tolerance. Greenhouse April 1-Nov. 15; cloth house July 15-Nov. 1.

HEYDAY Intermediate bright yellow pompon. Will initiate and develop its buds well at 56°. Characterized by open terminal sprays at any time of the year when it can be grown. Greenhouse April 1-Nov. 15; cloth house August 1-Nov. 1.

GOLDEN SHASTA Nov. 10 P
Large golden-yellow anemone. An expressive color intensification sport from Yellow Shasta. Superior color replacement for all flowering periods, whereby it provides exceptional merit during periods when Yellow Shasta fades.

GOLDEN CLIMAX Nov. 10 Intermediate pompon, Golden bronze sport of Climax, Regular crops of climax and its sports are improved by the reduction

Nov. 12 Small novelty decorative. Intense yellow sport of Illini Snowdrift. Similar to original. Natural greenhouse spray program from mid April thru mid November. Natural spray, pinched pots for the same period using TALL TREATMENT.

FANFARE Nov. 14 Golden-yellow intermediate anemone for natural spray pompons. Performs amazingly well during the same period that Crescendo is flowered. Spray programs from May thru mid November, Well adapted to cloth house conditions also. Because of extreme inherent vigor, one long day week can be dropped from the 10-week regular schedule. Finishing temperatures less than 60° induces bronze tinges.

deeper in color. Shane is an excellent answer for a late fall,

winter and spring dark yellow Shasta. Its uniform response,

vigor and size also makes for superlative fast disbuds and bantamums. Shane will be recognized as progressive improve-

Lemon yellow single. Greenhouse March 1-June 1 and Sept.

ment for northern cut flower programs in the winter.

11-WEEK VARIETIES (Pinch August 3)

SHANE (Nov 15 Nov. 15 **SOUVENIR** Intermediate dark yellow daisy with an early 11-week response. Intermediate to large anemone. Deep golden yellow. A colos-In regular programs it achieves best spray formation when sal version of Yellow Shasta. Stronger in habit and vigor,

treated as a 12-week variety. Greenhouse programs mid September through mid December and mid March through mid May.

Nov. 15 Intermediate deep yellow decorative, Larger than Yellow Highbrow. Strong, trim, growth habit with sprays resembling Forty Niner, Tolerates 56° for bud initiation and development. Its point of contribution to the 11-week yellow pompons lies in its dependability within a wide range of temperatures. Esquire performs well in the late cloth house and greenhouse programs mid September through mid December; again in mid March

through mid May. YELLOW TAFFETA Nov. 15 Intermediate lemon-yellow sport from Taffeta.

PRINCETON Intermediate golden decorative.

15-Dec. 1.

(A) Growers Agreement

YELLOW SCULPTURE

New Variety New Variety Growers Agreement



Esquire



Shane

S-2

S-1

Nov. 15

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal Normal Variety Description Flowering Date Price Variety Description Flowering Date

11-WEEK VARIETIES (Cont'd)

GOLDEN CHORD

Intermediate pompon. Intense golden yellow. Greenhouse Sept. 15-Dec. 15. Requires 60° for initiation.

FORTY-NINER

Intermediate brilliant golden yellow pompon. Requires 60° for initiation and high light intensity for maximum production. Greenhouse Sept. 15-Dec. 15.

GOLD BALL

Nov. 15

Intermediate golden yellow pompon. Temperature tolerance improves Golden Chord and Forty Niner. Hard, durable. Size of Corsair. Greenhouse March 1-June 1 and Sept. 15-Dec. 15.

ILLINI GOLDILOCKS

Nov. 15

Intermediate golden yellow decorative. Tall and vigorous. Requires high light intensity for maximum production. Greenhouse Sept. 15-Nov. 15. Requires 60° or less to develop buds.

SUSANNE MILLER

Nov. 15

Large anemone. Deep yellow cushion. Disbud Nov. 1-April 1.

ILLINI BONBON

Nov. 18

Very small dark yellow anemone. Short growth habit. Dainty individual flowers develop perfect well-rounded cushions and are borne in massive clusters on short natural sprays. Exclusively for pots from March thru June and October thru December. MEDIUM or TALL TREATMENT.

ILLINI GOLDRIFT

Nov. 18

Intermediate feathered decorative. Bright golden yellow. Form closely resembles Illini Snowdrift. Growth is cleaner, stronger and requires little or no disbudding. Flower is larger and fully double. Intolerant of summer heat. Sufficiently vigorous to produce good crops late fall, winter and spring.

YELLOW L. I. BEAUTY

Large lemon anemone. Best grown as a fast disbud Nov. 1-April 1.

YELLOW HIGHBROW

Sport of Highbrow. Intermediate golden yellow pompon identical in habit with Highbrow. Requires 60° for initiation. Greenhouse Sept. 15-Jan. 1.

New Variety (New Variety Growers Agreement

LOLLIPOP

Lemon yellow pompon. Very formal, round and hard. Has a long season of usefulness. Fast response, and good production. Greenhouse March 15-May 1 and Sept. 15-Jan. 1.

PIPPIN

Nov. 20

Intermediate yellow pompon. Produces heavily on compound sprays. Greenhouse March 1-May 1 and Sept. 15-Dec. 15.

KLONDIKE

Nov. 20

An orange yellow pompon. Greenhouse Sept. 15-Dec. 1. Give one additional long day week to add height.

Yellow daisy. Intense, heavy petallage.

YELLOW NEVADA .

Intermediate light lemon anemone.

ILLINI SUNSPOT

Large yellow pompon. Responds well to disbudding. Green-

house Sept. 15-Dec. 1.

ETUDE M

Large semi-formal pompon. A rich yellow. Performs well on either the regular or fast spray schedules from March thru May and mid September thru December. Spray is benefited when center bud is removed.

SULTAN

Nov. 22

Large formal decorative. Golden yellow to amber at low temperatures. Temperature tolerance of Forty Niner. Greenhouse March 1-June 1 and Sept. 15-Dec. 1.

YELLOW PARAMOUNT

Deep yellow sport of Paramount. Greenhouse March and April also Sept. 15-Dec. 15.

GOLDEN PARAMOUNT

Nov. 23

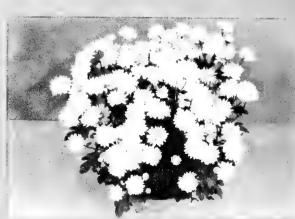
Intermediate formal pompon. Intense golden yellow. Sport from Yellow Paramount,

Growers Agreement





Etude



Illini Bonbon



YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
	12-WEEK VA	ARIETIES	(Pinch Au	gust 10)		
GOLDENROD Full round and solid light	Nov. 25 yellow pompon.	S-2		merly known as Gold	Nov. 28 en Jane. Best vigor and	
ILLINI GOLD Small golden yellow pompo	Nov. 25	S-1	÷		disspray. Nov. 15-Jan	
	Nov. 25 prative. Disspray Oct. 15-D	S-3 Dec. 1.	YELLOW Co	ORDOVA e deep lemon pompon	Nov. 30	S-1
Requires 60° for initiation. HIGHLANDER Intermediate intense yellow	Nov. 25 decorative. Sprays Oct. 15-	\$-3 Jan. 1.	YELLOW FO		Dec. 1 iprays Nov. and Dec.	S-3
SUNNYSIDE	Nov. 25 compon. Fine Thanksgiving	S-4	OMEGA Intermediate house Oct.		Dec. 1 on. Very productive. (S-4 Green
	Nov. 25 mone with greenish yellow of winter and early spring pr 15-Jan. 1.		YELLOW G	ALAXY	Dec. 1 llow. Fine for fall, winter ay 1.	S-4 er and
	13-WEEK VA	RIETIES	(Pinch Aug	gust 17)		
JACKPOT	Dec. 5	S-1	CORONATI	ON	Dec. 5	S-5

Large golden yellow decorative. Dissprays. Must have 60° Intermediate to large decorative. Intense golden yellow. Larger, initiation temperatures. more beautifully formed than Corsair, also responding more uniformly and rapidly. The sprays are open and bunch well. YELLOW ACCLAIM **S-4** Coronation will initiate and develop at 56°, Provides fine 3"-

Yellow sport from Acclaim. Sprays Nov. 15-March 15. 4" disbuds in winter fast programs. Best sprays are obtained when Coronation is treated as a 14-week variety. Coronation materially strengthens winter programs when flowered Decem-Intermediate golden yellow pompon. Selection from Acclaim.

ber through mid March.

Intensification of Yellow Acclaim, Spray Nov. 15-March 15. SPUNGOLD Dec. 8 Intermediate single. Deep lemon yellow. Very responsive in YELLOW CAMEO Dec. Intermediate lemon decorative. Vigorous and productive in winter programs where it outproduces Yellow Galaxy. Its

stocky, rigid growth, high production and good substance natural season. make it a valuable winter variety. Fine companion for North-YELLOW ENCHANTRESS Dec.

Large disbud and disspray anemone. Growth habit is very DARK YELLOW SATELLITE Dec. 10 similar to original parent. Grown in regular and fast disbud Dark yellow sport from Yellow Satellite. A crisp, formal pomprograms December through mid March. pon of fine response in 60° December through February pro-

grams. Color is a decided improvement over the original. CINDERELLA Dec. 5 Intermediate deep golden yellow single. Spray crops. Nov. IMP. YELLOW SUPREME S-2 15-March 15. Large anemone. Disbud. Tall.

> New Variety New Variety Grower's Agreement Growers Agreement

> > AVAILABLE APRIL 1, 1959



Coronation



Spungold

YELLOW POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety Description	Normal Flowering Date Price	Variety Description Flowering Date Price
	13-WEEK VA	RIETIES—(Cont'd)
CORSAIR Large yellow pompon. A "best" for Nov. 15-March 15. Requires 60° mi	r winter spray programs,	YELLOW SNOWCREST Dec. 13 S-: A clear yellow sport. Bright green eye. Sprays Dec. 1 March 15.
	14-WEEK VARIETII	S (Pinch August 24)
YELLOW RIVIERA Intermediate decorative. Initiate at Dec. 1-March 1. YELLOW GARZA Intermediate anemone. Lemon.		GOLDEN ELEGANCE Intermediate lemon yellow decorative. A sport from Elegance and identical to it in all respects except color. Very responsive and tolerant to 60° initiation and development. Can be recommended in December through February programs. Of medium height and vigor. The Elegance series greatly strengthens northern winter programs. They mature naturally for Christmas.
SHAMROCK Large yellow decorative, Disspray pr	Dec. 15 S-4 ograms, Dec. 1-March 1.	SUN VALLEY Intermediate to large pompon. Intense golden yellow, enhanced by a striking green eye. Strong grower with heavy production. Requires 60° for initiation and tolerates winter 60° programs well. A week later than Corsair, shorter, heavier
DECEMBER GOLD Large deep golden yellow pompon.	Dec. 15 S-1	and much more beautiful. Benefited by center bud removal. Constitutes a very significant advance in 14-week pompons. It should rapidly become an important 60° yellow pompon in the North for December through February programs.
ILLINI BRIGHTEYES Intermediate anemone. Lemon yellow of the property of the p	oles are stiff, stems wiry initiation. Tolerates 60° has never shown a trace	VIBRANT Dec. 20 S-4 Intermediate deep lemon decorative. Disspray Dec. SUNRISE Dec. 20 S-3 A yellow pompon best described as a late Gold Coast. Sunrise is not sensitive to low night temperatures.
Production is average. Quality high. Prough February.	Recommended December	GOLDEN ANNIVERSARY Dec. 24 S-2 Small intense yellow pompon.

15-WEEK VARIETIES (Pinch August 31)

A deep yellow decorative. Smaller than Vibrant but very similar to it and flowers later.

YULEFLAME Dec. 25 S-3
Large decorative. Deep lemon.

YELLOW SNOW Dec. 25 S-3 Intermediate pompon.

GOLDEN SNOWBOUND Jan. 5 S-2
Intermediate golden yellow decorative. Color intensification
of Illini Yellow Snowbound. Natural flowering. 60° initiation.
50° development.

ILLINI YEL. SNOWBOUND Jan. 5 S-2

Yellow sport of Snowbound. Requires 60° for initiation and 50° for development.

New Variety New Variety Growers Agreement

Growers Agreement



Sun Valley



Golden Elegance



BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Normal

Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
		7-WEEK GARD	EN VAR	RIETIES (Pin	ch July 6)		
W. P. SN	YDER	Oct. 1	S-1	DOLLI-ETTE		Oct. 10	S-2
	te decorative. Apricot re. Requires 60° min	bronze. Good garden o imum temperatures.	and pot	novelty. A	shapely, spring pot p	on. An interesting and column. Prolific and dura	ible as
REMEMBR	ANCE	Oct. 5	S-2			New forms such as the the early garden varie	
		t bronze. For garden o	ind pot	TORONTO	ioresi ana appear ior	Oct. 10	S-2
		Oct. 5 flower. Low compact anden variety for a fore		the garden, cushion typ	. Sturdy stems, prolif e growth. Attractive	orative. Excitingly beau ic bloomer, and a spr spring pots. Establishe "must-have" for every	eading s new
LIPSTICK		Oct. 5	S-3	CARNIVAL		Oct. 10	S-2
coupled wi	ith free breaking act oot plant as well as in	ompon. Dwarf spreading ion add up to a reliab 1 October. SHORT TREA	le May TMENT			ge red. Strong. Backs	
	led. Very shapely an e prolific garden varie	d colorful if finished at	60° or	MOROCCO		Oct. 12	S-1
MONA	P. D. Harris San and I. Amilia	Oct. 5	S-1			corative. Free breakers. Excellent spring pot	
Very hard,	intermediate rust b	ronze pompon. A vari	ety for			tributes needed durab	

HUNTSMAN Red bronze decorative. Outdoor cut flower. Showy, depend-

able. Background garden variety.

RED VELVET Oct. 10 S-1 Intermediate crimson red decorative,

CARMINE QUEEN Oct. 10

Carmine red pompon. Outdoor cut flower.

border and pot culture.

RADIANCE Oct. 15 Intermediate red decorative. Breaks freely, Responds uniformly. Non-fading color. Color brighter, habit more prolific than Red

Velvet. Valuable garden variety. Spring pot plant. **CALUMET**

An apricot bronze pompon of superior flower quality for cut flower purposes. Very fine for the spring crop in the greenhouse, the earliest cloth house crop. Excellent growth as natural cut flower. Background plantings for gardens.

New Variety New Variety Growers Agreement

8-WEEK VARIETIES (Pinch July 13)

MRS. DuPONT

the garden variety group.

CORALHUE

bringer.

RAJAH Oct. 15

Large buff apricot decorative. Spring pot plant.

Small apricot coral pompon. Low, spreading growth habit.

Free breaker. Spring pot plant. Effective as a foreground garden variety. More double and more prolific than Joy-

Oct. 12

S-1

Large scarlet red daisy. Natural cut flower outdoors and greenhouse. Background garden variety.

JAMES STEWART Oct. 15

Apricot gold pompon. Responds with Norona in the early shadings. July cloth house. Natural cut flower for greenhouse and outdoor plantings.

Growers Agreement

AVAILABLE APRIL 1, 1959



Majestic



Andante

BRONZE & RPD POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		Normal 32 St	12 Th	\$,	334 Block Cake	The Control of the Co	

8-WEEK VARIETIES (Cont'd)

Talisman bronze; intermediate daisy, Recommended in the greenhouse, April 15-Aug. 1. Cloth house, July 15-Oct. 15.

Natural cut flower. Oct. 20 S-1

Intermediate coral red single. Recommended for greenhouse April 15-Aug. 1. Cloth house July 15-Oct. 15.

Intermediate incurved disbud. Large pompon, Warm orangebronze color with coral overtones. Short and spreading habit with prolific breaking action. Attractive foliage. Quality, appeal, and dependable performance results in one of the best early bronzes for pots bred to date. Border garden variety.

Oct. 23 Small silver bronze double spider. Only reverse color displayed on completely tubular petals. A bizarre novelty for spring. Equally as attractive as an intermediate fall garden variety.

RESOLUTE Oct. 24 A large reddish-bronze semi-incurved pompon. Strong, rigid growth habit. Versatile for pots MEDIUM TREATMENT, fast disbuds, and regular spray programs from April thru October. Should make a durable outdoor natural cut flower variety in the southern states.

9-WEEK VARIETIES (Pinch July 20)

Oct. 25 Large coral bronze single. Sprays, April 15-June 15; Sept. 15-Oct. 15.

FIREBIRD Oct. 25 S-1

Intermediate red bronze decorative.

BRONZE DOT Oct. 25

Small pompon. (Red Dot) Good two-tone. Cloth house July 15-Oct. 25.

SALLY Oct. 25

Small pompon. An intensified bronze and increased size selection from Bronze Dot. Cloth house, July 15-Oct. 25.

BUCKSKIN

A tawny bronze daisy. Very productive. Greenhouse, April 15-Nov. 1; Cloth house, July 15-Oct. 25.

Oct. 25 Intermediate decorative disbud. Apricot-bronze. Habit well

adapted to pots from mid April thru October, MEDIUM TREAT-MENT.

New Variety New Variety Growers Agreement

PAXON Oct. 25 Intermediate decorative disbud. A luminous apricot pastel rarely found in the chrysanthemum color range. An English development that grows and develops into superb fast disbuds from April thru June and again from September thru mid November. Hight summer finishing temperatures affect color loss and form distortion due to some reflexing of petals.

DOROTHY HYDE Oct. 25

Intermediate semi-incurved disbud. Bright orange-bronze. Greater tolerance to low light and temperature conditions allows it to be flowered several months earlier than Fred Yule in the spring. Buds will initiate and develop at 56° or above. Its dependable and vigorous habit makes for a fine fast disbud from March thru October.

STUART OGG

Oct. 25 Intermediate decorative disbud. A luminous apricot pastel rarely found in the chrysanthemum color range. An English development that grows and develops into superb fast disbuds from April thru June and again from September thru mid November. High summer finishing temperatures affect color loss and form distrotion due to some reflexing of petals.

(YA) Growers Agreement



Dorothy Hyde



Resolute

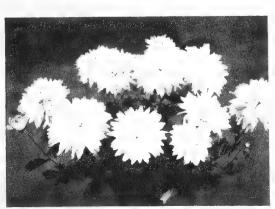
BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety Description Flowering Date Price	Variety Description Flowering Date Price
9-WEEK VARIET	TES (Cont'd)
SYBIL Oct. 30 S-2 Intermediate golden apricot daisy. Productive and durable.	BRONZE DAISY Nov. 1 S-1 Intermediate light bronze single.
Has petallage and substance. Versatile and brilliant color. Spray programs May 1-Oct. 30. Tolerates 56°.	IMP. BR. DAISY Nov. 1 S-2 Intermediate copper red bronze single.
BRONZECHIP Nov. 1 S-6 Intermediate decorative. Lively orange-bronze sport of Blue-	BUCCANEER Nov. 1 S-3 Rich orange bronze daisy. Excellent habit. Dependable fall variety. Sept. 15-Nov. 15.
chip. Valuable cloth house variety, July 15-Nov. 1. Recommended for the greenhouse, May 1-July 1, and Sept. 1-Nov. 15.	RED SENECA Nov. 1 S-1 Intermediate rust red decorative.
SENECA Nov. 1 S-1	BR. BUCKINGHAM Nov. 1 S-1 Intermediate rust orange single.
Intermediate copper orange decorative. GINGER Nov. 1 S-1	BARBARA FULLER Nov. 1 S-2 A dark coral red anemone. Dwarf compact growth habit. Pot disbuds Sept. 1-Dec. 1. Improves Gypsy in all respects.
Intermediate reddish bronze anemone. Free breaking habit. Will initiate and develop its buds at 56°. Produces a sym-	NAVAHO Nov. 1 \$-1 Intermediate brick red pompon.
metrical pot plant, Oct. 1-June 1. A livelier color than Gypsy. Has a more extended flowering period than Barbara Fuller.	RED DAISY Nov. 1 S-2 Intermediate single.
FIREFLY Nov. 1 S-1 An orange red pompon that holds its color exceptionally well.	IMP. RED DAISY Nov. 1 S-1 Intermediate single. Petallage color and spray surpass Red Daisy.
10-WEEK VARIETIES	(Pinch July 27)
JETFIRE Nov. 5 Intermediate flaming red decorative. A color that holds even in high temperatures. Outstanding in the cloth house, Aug. 1-Nov. 1. Greenhouse, April 15-Nov. 15. Best on sterilized soils. Susceptible to verticillium wilt.	BEAUREGARD Nov. 5 S-6 A reddish orange pompon. A very versatile variety that produces good flowers every month of the year. Cloth house, July 15-Nov. 1. Greenhouse, April 1-Nov. 15.
NECTARINE Intermediate apricot orange pastel decorative. Has no color competition during its season. Vigor of Copperhead. More beautiful form, Ideal either as a spray or fast disbud, April 1-June 15, and Sept. 15-Nov. 15, when able to finish at 60°	DARK BEAUREGARD Nov. 5 S-5 Intermediate pompon. A luminous mahogany bronze sport of Beauregard. Slightly smaller flower. Better high color retention. Greenhouse, April 1-Nov. 15, Cloth house, July 16-Nov. 1.
or less. Cloth house, Sept. 15-Nov. 1. ORANGE BEAUREGARD Nov. 5 S-4	BUTTERSCOTCH Nov. 5 S-1 Intermediate formal pompon. Golden orange.
Lively, light orange or golden bronze sport from Beauregard. Yellow during summer high temperatures.	RED RUST Nov. 5 S-1 Intermediate decorative. Rust Bronze.
DILLON BEAUREGARD Nov. 5 P Intermediate pompon. Intense reddish bronze. Possesses a large, full flower with broad petals devoid of notched tips. An all round size and form improvement over Dk. Beauregard.	RUBICON Nov. 5 S-4 Intermediate red bronze decorative. Greenhouse, May 1-July 1, and Sept. 15-Nov. 15. Cloth house, Sept. 15-Nov. 1.

Growers Agreement







Alex Colson (Page 139)

BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety Description	Normal Flowering Date Price	Variety Description	Normal Flowering Date Price

10-WEEK VARIETIES (Cont'd)

MAGICIAN Large reddish bronze pompon. Excellent	Nov. 5 form.	5-2	CHEVRON An intense bronze pompon. Holds color better that
The administration of the second second	Nov. 5	\$-2	or Seneca. Greenhouse, Sept. 15-Nov. 10. Tolera
GYPSY Small rust bronze anemone. Pot disbud,	Nov. 8 Sept. 1 <i>5-</i> Ja	S-1 in. 1.	THE TITAN Nov. 10 Large intense red anemone. Fast disbuds.
BRONZE PORTRAIT Intense, reddish-bronze pompon. A Sam to the ever-widening Portrait series. Useful program from March thru mid June au	in greenho	addition	Bright coral bronze sport of Pandora. Fast disbut house, Sept. 15-Nov. 10. Cloth house, Sept. 15- Nov.

Nov. 10 Intermediate intense rust red pompon. Cloth house, Sept. 15-Nov. 1. Greenhouse, Sept. 15-Nov. 15.

September thru mid November.

Nov. 10 Intermediate anemone, amber-bronze turning to bright yellow at high temperatures. Sprays, April 15-Nov. 15.

DAYBREAK M A bright and lustrous orange anemone disbud. Attains 4-5" diameters with a large and well-rounded cushion. A uniquely different and tasteful color for fast disbud programs from late March thru mid November. Color remains smooth under high temperature finishes although intensity may be reduced.

GILTGLOW M Nov. 10 Intermediate bi-colored single. An expressive reddish-bronze contrasted with a smart green disc. Gold reverse. Slow disc development and fine color retention add up to excellent keeping qualities either on the bench or when cut. Medium to short growth habit. Recommended for the regular spray program from mid April thru June and mid September thru November. This will introduce a striking new color version not presently in the commercial pompon trade.

WIZARD Y Nov. 10 Intermediate pompon. Orange-bronze. Has vigor combined with a stiff, wiry terminal spray. Improves the spray and habit of Climax and the response of Ranger. Tolerates summer high

temperatures and retains its vivid orange coloration. Fine for greenhouse or cloth house.

New Variety (A) New Variety Growers Agreement

AVAILABLE APRIL 1, 1959

Wizard

an Red Rust ates 54°.

S-1

ds. Green-Nov. 1.

CLIMAX Nov. 10 Intermediate intense orange pompon. Excellent vigor and production. Vivid color stimulates demand for bronze. Greenhouse crops, April 1-Nov. 15. Cloth house, July 15-Nov. 1. Sets a new color standard. Tolerates 56°.

RED CLIMAX 🕎 Nov. 10 Intermediate pompon. Reddish bronze sport of Climax.

COPPERHEAD Nov. 10 A large coppery bronze decorative. Very satisfactory grown as disbudded sprays or disbudded to a single flower. Fast disbuds. Sprays, May and June, Sept. 15-Nov. 10.

RED HUMDINGER An exciting burgundy red sport from Humdinger.

BRONZE MASTERPIECE Nov. 12 Intermediate pompon. Disspray.

DK. BR. MASTERPIECE Nov. 12 Dark sport of Br. Masterpiece, Disspray, Brick red with cool

PARAGON Nov. 12 A large rust red pompon. Sprays, Sept. 15-Nov. 12. Cloth house, Sept. 15-Nov. 1.

AMBERHUE Nov. 14 Intermediate orange bronze daisy. Green eye. Spray programs, May 15-June 15, and Oct. 1-Nov. 14. Cloth house Sept. 15-Nov. 1. Stalled by high temperature finish.

(A) Growers Agreement



Red Star (Page 140)

BRONZE & RED POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Plowering Date	Price
		11-WEEK VA	RIETIES	(Pinch A	ugust 3)		
	RD SUPREME cted from Beauregai	Nov. 15	S-3 same.	RED PRING	CETON e rust red decorative.	Nov. 15	. S-1
Size of flower group. Vigo somewhat m tends the Be	er is nearly doubled. F r is increased. Pedi ore open. Tolerates	Response shifts to the 11- cels are longer and : high temperature well o the fall and early sp	-week spray I. Ex-	In late fall	N 🏠 e pompon. Warm amb shadings and natural splements Rusticon wi	Thanksgiving program	ms Am-
RANGER		Nov. 15 on. A smooth, brilliant	S-5	ILLINI WA	RRIOR e rust bronze pompoi	Nov. 20 n.	S-1
color. Alway	s productive and reli	iable. Benefited by trea of high temperature for	tment	LEGAL TEN	NDER re decorative.	Nov. 20	\$-2
development	. An outstanding	cloth house variety Recommended in the g	being	RUSTICON Intermediat	e rust red pompon. C	Nov. 20 Greenhouse, Oct. 1-De	S-4 c. 1.
		November and mid A ember through October		Large smoo	R PAINT ` oth maroon red decord low temperature finish.		_
BR. JUBILA	TION	Nov. 15	P	disbudded	spray, Oct. 1-Jan. 1.		
in all respe finishing ten color retenti greenhouse	ects, other than colo nperature of 60° or ion. A real performe programs as well as	ze sport of Jubilation. or, to its parent varie less is required for max r for October thru mid late September and Oc	ty. A kimum I May ctober	color and f Disbudded May 1, and	icot buff anemone. V form. Sharp response. I sprays and fast o d Sept. 15-Jan. 1.	Tall, vigorous, and pro lisbud programs, Mo	ductive. arch 1-
for northern	n winter pompon p	ently contribute needed rograms. They will to res of 56-60° with ur	lerate	Intermediate	te single. Short growtl	Nov. 23 h habit. Excellent for	S-2 Thanks-
response.				BRONZE I	MINUET te pompon.	Nov. 23	S-1
MRS. DEW A heavy pe	EY talled deep orange b		S-1	October the peratures	r ed intermediate form hrough Christmas flow during bud developr	vering. Slowed by hi	gh tem-
		Nov. 15 npon. Sprays March 1- <i>N</i>	S-5 Nay 1;	Jan. 1. RED ROLI		Nov. 23	S-2
30,011		I & 1478W17 17.0			te brick red anemone	e. Disspray and alsou	a.
		12-WEEK VA	RIETIES		ugust 10)		
velvety smo	e wide petalled de oth amber bronze	Nov. 25 ecorative disbud. Reta color. A splendid choic mid November thru Ap	e for		DWOOD ite red pompon. Har- ne red pompon for Th		S-2 formed
real stando	ut in January and F	ebruary for the norther bed as an improved	rn en-		GOLDSMITH ber bronze decorative	Nov. 25 . Disspray. Fast disbu	S-4 ds, Nov



New Variety New Variety Growers Agreement

Growers Agreement





Beacon (Page 141)

BRONZE & RED POMPONS, DECORATIVES, SINGLE & ANEMONES

Normal Variety Description Flowering Date Price Variety Description Flowering Date Pri								
	Variety	Description	Flowering Date	Price	Variety :	Description	Flowering Date	Price

12-WEEK VARIETIES Cont'd)

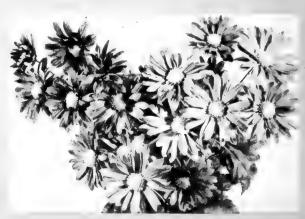
FALCON Intermediate reddish bronze pompon.	Nov. 25	S-1 .	ORANGE GALAXY A color sport from Galaxy, Golden of	Dec. 1 \$-1 prange. Spray programs,		
YOLANDA Intermediate tawny bronze anemone.	Nov. 25	S-1	Oct. 1-May 1. HOLIDAY	Dec. 1 S-3		
INDIAN HEAD	Nov. 28	S-1	Intermediate red single. Sprays, Nov.	. 15-April 15,		
Intense red bronze single.			RED EMPRESS	Dec. 1 · P		
APRICOT VALENCIA Large apricot bronze single. Disbud at	Nov. 28 nd disspray.	S-3	Large disbud anemone. A mauve-re essentially fine and appealing fast thru April.			
CRIMSON VALENCIA	Nov. 28	S-2	CRACKERJACK	Dec. 1 S-4		
Large maroon red single. Disbud and	disspray.		Intermediate daisy. The color is descri reddish bronze. Crackerjack is the a	ibed as being a brilliant		
GALAXY	Dec. 1	S-5	Vigorous and productive, performing			
Intermediate bright orange single. Exce response. Sprays, Oct. 1-May 1.	llent form, color	and				

13-WEEK VARIETIES (Pinch August 17)

RED ENCHANTRESS Large disbud and disspray anemone. Cl		_	1	APRICOT MINSTREL Dec. 3	P
BRONZE ENCHANTRESS Apricot bronze sport. Disbud and dissp		5 S-	1	Intermediate pompon. Sport of Bronze Minstrel. Clear bronze. The color display is especially enhanced und- ficial light. Its Calumet tone expands the Minstrel fam.	er arti- ily into
DEBONAIR Large red pompon, Fine form,	Dec.	5 S-	2	a color range not presently available in any late var	riety.
IMP. BRONZE SUPREME		10 S-	1	BRONZE MINSTREL Dec. 13 Intermediate coral red pompon. Fine for Christmas.	S-3
Large buff bronze anemone. Disbud. S HARLEQUIN	Dec.	10 S-	2	DK. BR. MINSTREL Reddish bronze sport. Deeper color. Smaller, harder flo	S-3 wer.
Crimson red intermediate decorative,				RED MINSTREL A sport from Br. Minstrel with a lively red glow added	S-3
CHRISTMAS STAR Intermediate red single. Productive an				FLAME MINSTREL Dec. 13	Р
Nov. 15-March 15.			•	Reddish-bronze sport. More vigorous.	
New Variety New Variety	Grower	rs Agreement	W.	Growers Agreement	



Crackerjack



Illini Homespun

S-3

BRONZE & RED POMPONS, DECORATIVES, SINGLE & ANEMONES

Variety Description	Normal Flowering Date	Price	Variety Description	Normal Flowering Date	Price
BRONZE RIVIERA Intermediate orange bronze	14-WEEK VA Dec. 15 e decorative.	S-1	(Pinch August 24) CHRISTMAS GREETING Large red decorative, Fine for Chri	Dec. 15	\$-5
CLARET A brilliant red daisy.	Dec. 15	S-1	MERRYMAKER Intermediate red single. Sprays De	Dec. 20 c. 1-March 1.	5-3
TOPAZ	Dec. 15	S-T	POINSETTIA Large scarlet red daisy. Tall sprays	Dec. 20 for Dec.	S-4
Warm orange bronze sing	le. Sprays, Dec. 1-March 1		ILLINI HOMESPUN (*) Intermediate single. Bright tomato	Dec. 20	P nt with
BRONZE ALVODA 🏵 Amber-bronze sport from A	Dec. 15	Р	heavy stem. Best on raised beds finish. Recommended for retail gr and unusual new color.	. Color enhanced b	y cool

PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

			7-WE	EK G	ARD	EN	VARIE	TIES (Pine	h July	6)		
SPELLBOUND	, s & 6"	J. Sec. 14.2.	. 14 5 0	Oct.	1 .	٠ [S-3	RASPBERRY	ICE 🛞		Oct. 10	P
Intermediate	lavender	decorative.	ldeal sp	oring p	pot.			Intermediate	pompon.	Raspberry pink, d habit that is id		
MISCHIEF		The second	ar 1 - C	Oct. 1	0	٠,	5-3	and fall po	ts as well	as the fall garde	n.	

Small single. Dark purple with contrasting yellow discs produced in profuse abundance on a globose plant. A colorful novelty that lends itself for spring. Also an attractive foreground garden variety.

Salmon rose pompon. For borders and pot culture. Spreads well. Short and compact.

FUCHSIA FAIRY Oct. 14 Small light pink decorative. Compact, globose growth habit similar to the Cushion varieties. Spring plants.

the best late garden varieties.

for spring pot plants.

8-WEEK VARIETIES Oct. 15 Lavender-pink button pompon. Early spring pot plant or as a natural flowering garden specimen.

CUPID Oct. 15 Small pink decorative. Unique dahlia form. Prolific. Dwarf, masses and spreads as a garden variety. Disbud for spring pot plants.

he sile of a Oct. 15 Intermediate smooth pink single. For cut in the greenhouse. Outstanding production.

ACCOLADE Oct. 15 Intermediate decorative. Glowing shell pink. An ideal outdoor, natural cutting variety, equally valuable in spring and fall spray programs.

New Variety New Variety Growers Agreement



Candytuft

(Pinch July 13) CITATION Oct. 15 Intermediate mauve pink pompon. A pot plant disbud. One of

Intermediate intense purple decorative. An impressive color

ENTERPRISE Intermediate deep pink pompon. Excellent substance. Outdoor

cut flower. ELIZABETH HOOD Oct. 15

Large light orchid pink pompon. Garden backgrounds, and for cut in greenhouse.

JEWELL Oct. 15 Small formal pompon. Lavender pink, short and productive.

Growers Agreement



Accolade

PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		8-WEEK	VAR	ETIES (Cont	'd)		
	e pink single. Especial d uniform response ii	Oct. 20 ly valuable April 15-Oct the cloth house.	S-2 15.	MARY McA Small deep	RTHUR coral pink pompon.	Oct. 23	S-1
CAROLYN 'Intermediate	YOSICK lavender pink pomp	Oct. 20	S-2	PRELUDE Intermediate	coral pink single. Re	Oct. 24 equires cool finish.	S-1
		9-WEEK VAI	RIETIES	(Pinch Jul	y 20)		
REVEILLE Small pink	pompon. Initiates an	Oct. 25 d develops at 54°. Pop	S-1 corn	ROSE GAIE		Oct. 25 Sport of Gaiety. A be	P autiful

production. Requires low temperature finish. Spray programs.

PINKETTE Small pink pompon. Greenhouse May 1-Oct. 25. Cloth house.

Oct. 25 Intermediate orchid pink anemone. Dwarf, breaks freely, responds well. Disbud pot plant.

VOGUE Large pink single. Beautiful form and substance. Sprays May 1-July 1, and Sept. 1-Oct. 25, Cloth house.

A very productive deep pink single that holds color well. Tolerates 54°. Greenhouse, May 1-Oct. 25, Cloth house.

PINK DOT Oct. 25 Small pompon. Fine two-tone. Cloth house, July 15-Oct. 25.

Small pink pompon. Selection from Pink Dot that displays an additional overall color intensity. A cloth house variety, July 15-Oct. 25.

BETTY ROSE Oct. 25 Large light lavender pink anemone.

WAGONWHEELS (M) Intermediate anemone. Silvery-coral reverse color as displayed by all completely tubular petals. A novel form representing a spoked wheel in appearance. Vigorous growth habit develops tall plants abundantly supplied with spray masses of perfect florets. Provides a uniquely different cut flower pom in both fast and regular spray programs from April thru October.

New Variety New Variety Growers Agreement

pastel color best grown in the cool finishing periods of spring and fall.

THOMAS JOHNSON Oct. 28 Large decorative. Deep orchid pink, Ideally suited to the fast disbud programs, May and June, also Oct. 15-Dec. 1.

GLAMOUR (A formal pompon disbud of intermediate size. Lavender pink with intensified centers. Spreading and stocky growth habit render it useful primarily as a pot plant variety from March thru November. MEDIUM TREATMENT.

HANDSOME (M) Intermediate decorative pom. Lavender pink. Color, size, and form bear a striking resemblance to Bluechip. Superb natural spray cut pom from mid April thru mid November. Is inherently as low temperature tolerant as Bluechip, 52° minimum, for bud initiation. Produces slightly smaller fllowers but more of them. A highly versatile pompon.

Intermediate luminous pink decorative. Recommended in the greenhouse, May 1-Nov. 15. Cloth house, July 15-Nov. 1. Top notch pink. Tolerates 54°.

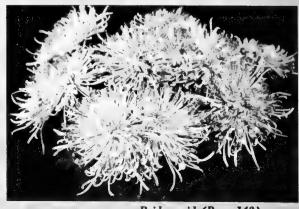
Intermediate decorative. A flattering light pink selection of Bluechip. Can be grown whenever Bluechip is recommended. Greatest color difference is noted when finished at 60° or less. Greenhouse May 1-Nov. 15. Cloth July 15-Nov. 1.

PEACH CHIP Intermediate decorative. Bright peach pink. With cool finishing temperatures of spring and fall, the color is unmatched for brilliance and harmony. Has all the vigor and temperature tolerance of Bluechip. A beautiful supplement to Bronzechip especially in the spring and for cloth house programs.



Growers Agreement





Handsome

Bridesmaid (Page 142)



PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

9-WEEK VARIETIES (Cont'd)

DARKCHIP	Nov. 1	P

Intermediate dark lavender pink sport of Bluechip. Color similar to that of Pennant but brighter. In the spring months, growth is normally 3-4" taller than Bluechip and 3-4 days later to flower. Can be flowered whenever Bluechip is grown, May thru mid November as a greenhouse spray. Like all the rest of the Bluechip sports, the color becomes enhancingly luminous under normal incandescent light.

DK. PINK BUCKINGHAM Intermediate intensified pink single.	Nov.	1	S-1
LILLIAN DOTY Large light pink pompon. Disspray and	Nov. disbud.	1	S-1
TEMPO ' Intermediate deep pink decorative. greenhouse, May 1-Nov. 15, and cloth	Recomme		in the

Large lavender pink pompon. A versatile variety. Tolerates

54° Responds well to partial disbudding. Excellent year round

pots. Greenhouse, March 1-July 1, and Sept. 15-Nov. 15.

Cloth house, July 1-Nov. 1. Disbuds, Sept. 15-July 1. For sprays

Large light lavender pink pompon. Portrait sport with an

identical growth habit. A useful supplement for Portrait during

periods of the year when a shade lighter than Portrait may be

height is improved by addition of one long day week.

10-WEEK VARIETIES (Pinch July 27)

MERMAID

Nov. 5

Intermediate pompon disbud. Medium lavender pink with an intense tone on tone center contrast. A dwarf version of Portrait with decidedly better breaking action and spreading habit. Unfailing as a year round pot variety using SHORT TREATMENT. High temperature color retention equals that of Blue Ribbon. Fine foliage with smart, formal form.

SOUTHDOWN PINK

Intermediate duplex disbud of Valencia size and form. Delicately shaded pink close to a true light pink carnation. Tolerates 56° minimum temperatures. Develops equally as well during the summer periods but 60° or lower is required for best color expression.

PARISIENNE

Nov. 5

Intermediate shell pink single. The color is as close to true pink as exists in the chrysanthemum. Sprays, Sept. 15-Nov. 15.

Intermediate pink daisy. Productive, durable, striking color, and fresh appearance. Spray crops May 1-July, and Sept. 15-Nov. 15. Cloth house, July 15-Nov. 1. Improved with center bud removal.





New Variety New Variety Growers Agreement

desired. **PROFILE**

PORTRAIT

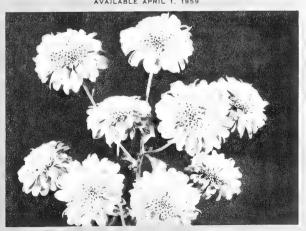
PINK PORTRAIT

Nov.

Large pompon. Another distinctive color variation to add to the increasing number of beautiful Portrait sports. Form is more decorative. Growth, vigor and breaking habits are as good if not better than Portrait. Recommended for pots and spray programs from March thru December. Summer color is best with some shade protection, but when finished cool, maximum color expression is dazzling among the Portraits.



Growers Agreement



Magic (Page 129)



Mermaid





PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety D	escription	Normal Flowering Date	Price	Variety Description	Normal Flowering Date	; Price
				T		

10-WEEK VARIETIES (Cont'd)

DARK BULKELEY Intermediate formal deep lavender pompon.

CRITERION Nov. Large pink decorative with a vigorous, compact growth habit. A new and valuable pot plant variety, Sept. 1-July 1. Also a fine cut flower variety, May 1-July 1; Sept. 15-Nov. 15, with one extra long day week and center bud removed. Tolerates

FROLIC X Nov. 10 Intermediate pompon. Bright lavender pink. Short habit for all sizes of pots. Breaks, spreads and responds in a fool-proof manner. Ideally adapted for natural spray pot programs. Retains color well. For growers who do not disbud their pot plants Frolic should fit the bill.

PINK DELUXE Nov. 10 Medium to large lavender pink disbud. A significant achievement in the development of flower size within the pinks available for pots. Four to five inch decorative type flowers are produced on a Bonnaffon type chassis. Heavy stems, short internodes, with free and wide-angled breaking action. Can be efficiently flowered in pots 12 months of the year with either MEDIUM or TALL TREATMENT. Color is best preserved during the summer months when developing flowers are given some shade protection. A variety for those who seek the best.

ILLINI ACCENT Nov. 10 Intermediate to large decorative. Deep mauve purple. Stocky growth habit. Will tolerate 52° for initiation and development. Full color retention requires less than 60° finishing temperatures. A versatile responsive variety that can be recommended for spray programs in the cloth house mid September through October; in the greenhouse mid September through November. Pot programs with medium treatment mid September through mid June with cool finish. Low temperature tolerance and intense color are its distinctive qualities.

New Variety New Variety Growers Agreement

PLUM Nov. 10 Large silvery lavender duplex spider. Petal completely tubular and partially incurved. A close counterpart to the old Vivacious Lady. Equal to the flawless dependability and superb growth habit of Luyona in a year-round fast disbud program. This is another salient contribution to enlarge the range of variety for disbuds.

Nov. 10 ... S-4 Intermediate pink pompon. Improves Pinkette form and color. Formal and hard. Pink Igloo. Spray crops, May 15-July 1; Sept. 15-Nov. 15. Cloth house, July 15-Nov. 1. Tolerates 56°. Delayed by excessive high temperature during bud development.

PENNANT Intermediate deep pink pompon. Recommended in the greenhouse, April 1-Nov. 15. Cloth house, July 15-Nov. 1.

Large anemone disbud, Lavender pink, vigorous and responsive. Tolerates low temperature (56°) for bud initiation and requires 60° or less for best finishing results. Vastly improves the quality and growth of Enchantress as a fast winter disbud, Oct. 1-June 1.

PERSONALITY Nov. 10 A large luminous-pink incurved pompon.. Tolerant of 56° for bud initiation and development. Adds color and form improvement to Queen of Pinks as a pot plant, March 1-July 1; Sept. 1-Jan. 1, and single pinch. Uniquely favored with short internodes and large foliage which complements it when grown as a pot plant.

DK. PK. PANDORA Nov. 10 Intermediate dark pink decorative. Selection from Pandora. Sprays Sept. 15-Nov. 10. Fast disbud programs. Cloth house Sept. 15-Nov. 1. Requires 60° initiation.

SALMON PANDORA Nov. 10 Intermediate salmon decorative. Selection from Bronze Pandora. Unparalleled color for fall cloth house and greenhouse.

Nov. 10 Large luminous pink decorative.

Nov. 10 Intermediate deep lavender pompon.

Growers Agreement



Cheerful



Illini Accent

PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

		Normal		<	4.00	N. I	
Variety	Description	Flowering Date	Price	Variety	Description	Normal Flowering Date	Price

10-WEEK VARIETIES (Cont'd)

SCINTILLATION Nov. 10 Intermediate deep pink pompon. Very vigorous and heavy. Superb cloth house variety, Sept. 15-Nov. 1. Greenhouse, Sept. 15-Nov. 15. Requires 60° bud initiation.

LINDA LOU Intermediate light lavender pink anemone. Responsive. Tolerates 54°. Greenhouse, April 1-Nov. 10. Cloth house, July 15-Nov. 1.

DK. LINDA LOU Nov. 10 Intermediate deep lavender pink anemone. Very productive.

Large luminous violet purple, formal pompon. A valuable disbud pot plant. Cloth house, July 15-Nov. 1. Tolerates 54°. Strong consumer appeal.

MASTERPIECE Nov. 12 Intermediate lavender pink pompon. Disspray. Tolerates 54°. Greenhouse.

ROSE MASTERPIECE Nov. 12 Intermediate light lavender pink pompon. Disspray. Finish cool. Greenhouse, April and May, also Sept. 15-Nov. 12.

Nov. 12 S-1 Intermediate pink anemone.

CHEERFUL (A) Nov. 12 Intermediate natural spray pompon. Lavender pink with tone on tone contrast. Best described as a "Delmar" flower on a "Delight" chassis. Recommended in the greenhouse spray program from mid April thru mid December. An easy variety to cut and handle. Sprays usually terminal.

11-WEEK VARIETIES (Pinch August 4)

Nov. 15 A two-tone pink pompon. Greenhouse, March and April, Oct. 1-Dec. 1. Best with cool finish.

DARK TAFFETA Nov. 15 Dark pink sport selected from Taffeta. Retains more color than Taffeta when fading becomes a problem. Fine for the late cloth house and early spring programs.

DARK NORMA Nov. 15 Large dark lavender anemone. Disbud. Fast crop, Nov. 1-April 1.

RHYTHM Nov. 15 Smooth light pink intermediate daisy. Characterized by extra vigor and fast rate of growth. As a result, efficiency is increased by provided 12-week timing. Recommended for greenhouse programs from October through mid December and March through April.

CHARM W Intermediate anemone. Bright pink. Short habit, good spread. A pink version of Barbara Fuller for pots. Uniform response. Flowers with and requires the same treatment as Bonn DeLuxe.

New Variety New Variety Growers Agreement

JUBILATION Nov. 15 Large pompon. Masterpiece pink. Growth is clean and strong with sharp responses. Jubilation is the best product to date that meets the need for a late fall, early winter and spring Bluechip. Spray and habit are closely identical. Tolerant of 56° for initiation and development. Recommended for October through mid December and March through mid May greenhouse spray programs.

ILLINI SPRINGTIME Nov. 15 Intermediate pink single. Outstanding color and vigor.

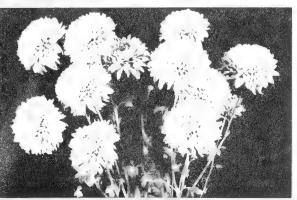
Nov. 15 Intermediate anemone. Dark orchid pink with gold tipped cushions. Rapid, vigorous growth. In the greenhouse it combines flawless performance with production and striking color during October through December and March through April. Tolerant of 56° for initiation and development.

PIONEER W Nov. 15 Large Pompon. Luminous shell pink. Essentially for Bantamum and fast disbud crops. Its principal assets are its vigor, consistently dependable response, low temperature tolerance and high production. A true home-sized disbud that is a real Pioneer for Bantamum crops.

Growers Agreement



Charm



Jubilation



PINK POMPONS, DECORATIVES, SINGLE & ANEMONES

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

11-WEEK VARIETIES (Cont'd)

VEDOVA

Nov. 15

PINK L. I. BEAUTY Nov. 20 Large light pink yellow cushion anemone. Disspray and disbud.

Extra large Valencia size, anemone disbud. Pastel shade of a lustrous lavender pink with small green-tipped cushions. Color is best expressed in a cool 60° environment. The performance, beauty, and quality of this variety establishes a new precedence from October thru May flowering periods either as a fast or regular disbud, or a pot variety using TALL TREAT-MENT.

DK. PK. L. I. BEAUTY

Nov. 20

An intensified color selection of Pink L. I. Beauty. Disspray and disbud.

STACCATO M

VENOYA

Extra large lavender-pink anemone disbud. Strikingly similar in growth to Vedova, Venoya flower develops a substantially larger green-eyed cushion with greater depth, in addition to flowering 5 to 7 days later. Fast and regular disbud programs, and pot plant programs using TALL TREATMENT from October

the winter from October thru April in the regular spray program. Tolerates 56° minimum. Flower durability lends itself well to clothhouse use. Color brightness best retained at night temperatures of 60° or below. A productive and profitable addition to the presently small group of popular 11-week pinks.

Large silvery pink pompon. Form, color and substance excellent. Greenhouse. Fast disbuds, Sept. 15-May 1. Color is

Intermediate formal pompon, Lavender pink, Much like an

11-week Minstrel in form, but reliably responsive all through

GRAND SLAM

unexcelled in its season.

Nov. 20

Brilliant silvery pink daisy.

BLUE SKIES

Large pompon. Portrait pink. Develops a larger flower with more vigor than Delmar. Improved by early removal of center buds. A smart, impressionable flower that excels in color and tolerates a cool 60° temperature for fall, winter and spring

ALMEGA

Nov. 20

MINUET

S-2

Small true pink pompon. Excellent form.

DARK ALMEGA

Nov. 20

Dark lavender pink sport selected from Almega, Habit and

Intermediate lavender pink pompon. Very novel form with tubular rays.

MARION BREEDON

Nov. 20

Intermediate to large anemone. Smooth lavender-rose pink. Achieves a new standard for good form and color in anemones. Vigor, production and quality greatly improve the Pink Long Island Beauty series for fast disbud and disspray programs. Recommended season is mid September through October in the cloth house; mid September through December in the greenhouse regular spray and fast disbud crops.

performance are identical to the parent variety.

CELEBRITY Y

ILLINI FORMAL

crops.

Nov. 23

Nov. 23

Intermediate decorative. Color is a discriminating shell pink. Objectively bred and selected for a larger sized flower and a more lucidly clear pink color than Almega provides. Substantially increased vigor renders this a real prize for greenhouse sprays from mid October thru mid April. Production competes favorably with any outstanding late variety for winter flowering in the north. Maximum color needs a cool 60° finsh.

New Variety (New Variety Growers Agreement

Growers Agreement

AVAILABLE APRIL 1, 1959





Woking Scarlet (Page 141)



PINK POMPONS, DECORATIVES, SINGLES & ANEMONES

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		12-WEEK VA	RIETIES	(Pinch Aug	ust 11)		
distinctive c	e pompon. Almega pinl lot color contrast. Impi ih and April; Sept. 15-	oved Almega habit.	S-6 e, and Spray	VALENCIA Large light I		Nov. 28 Disbud and disspray.	
ILLINI ROS Intermediate	EGLOW pink pompon. Requi	Nov. 25	S-1 (max.		er pink single.	Nov. 28	S-3
and natural	Productive. Best disspresseason.	ayed. Greenhouse in	March		ort of Valencia.	Nov. 28	S-1
PRINCESS Small pink	pompon. Hard and durc	Nov. 25 ible.	S-2	ORCHID VA Large single.	LENCIA Semi-anemone cushi	Nov. 28	S-1
	one. Disbud.	Nov. 25	S-3	SALMON VA	ALENCIA Outstanding color.	Nov. 28	S-1
crowned cu winter varie fast spray	anemone. Delicately shions. A forerunner to ties for northern green from November thru	faster, and more e houses. Recommended	fficient as a	portant pink	pompon. A quality pompons for this s an extra week to	Nov. 30 flower. One of the moleason. Greenhouse, O improve height.	S-1 est im- ect. 1-
LEGEND &		Nov. 25	P	HERITAGE Intermediate	formal dark pink po	Dec. 1	S-1 us.
gap in wint Its flower is	e formal pompon. True ter programs for a god equally as beautiful o ter through April. It is	od pink Icecap or Co is Minstel. Response	orsair. is uni-	An Enchantre faster, more	ss seedling that co	Dec. 1 mone. Deep magenta mbines increased vigor Performs well in the ph April.	with
		13-WEEK VA	RIETIES	(Pinch Aug	ust 18)		
suited to no	daisy. Bright lavender thern winter conditions treated as a 14-week	. Very vigorous and	S-2 y well should	response are	pink sport from Sr	Dec. 8 nowdrop. Growth habitent variety. Mid Novems.	
ENCHANTR Large lavend buds, in Dec	der pink anemone. Dist	Dec. 5 oud and disspray. Fa	S-2 st dis-			Dec. 10 r similar to that of Vale Sprays Nov. 15-March	
DK. ENCHA Large deep in Dec.	NTRESS pink anemone. Disbud	Dec. 5 and disspray. Fast di	S-1 isbuds	PINK SUPRE! Large pink a Tall disbud.	*****	Dec. 10 mbles 1mp. White Sup	S-1 reme.
New V	ariety New Va	riety Growers Agreen	nent 6	Growers Agre	eement		
	AVAILABLE APRIL				ŞE	E PRICE LIST ON PAGE	143



Legend



Prom

Variety Description	Normal Flowering Date Price	Normal Variety Description Flowering Date Price
	13-WEEK V	ARIETIES (Cont'd)
PROM Intermediate pompon, Smoot	Dec. 13 P n, intensified Delmar pink. Fine inter cut flower programs. Very	MINSTREL Dec. 13 S-4 Intermediate lavender pink pompon.
	form response in cool 60° units. Dec. 13 S-1	DK. PK. MINSTREL A clear, clean deep mulberry shade of Minstrel.
GAY MINSTREL	Dec. 13 P	IMP. PK. MINSTREL Dec. 13 S-
	of Minstrel but a lighter, livelier	Its color resembles that of Pink Dot and it does not deteriorate rapidly with maturity. Imp. Pk. Minstrel has form, substance and color.
	14-WEEK VARIETI	ES (Pinch August 24)
RIVIERA Intermediate luminous pink d Finish cool. Sprays, Dec. 1-N	Dec. 15 S-3 scorative. Requires 60° initiation. arch 1.	ROSE MEDALLION Dec. 20 S-Rose pink sport of Medallion. LYNDA McLANE Dec. 25 S-2
ROSALIND Intermediate light lavender Dec. 1-March 1.	Dec. 20 S-1 single. Tolerates 56°. Sprays,	A late pink pompon with a habit that does not produce blin growth and a color that is highly acceptable. Late nature crops. ALVODA Dec. 25
DEFIANCE Intermediate decorative. Spi 60° initiation cool finish.	Dec. 20 \$-2 ays, Dec. I-March 1. Requires	Large smooth Portrait pink decorative. Dec. 1-March 15. Fre growth. Habit, size and color improve Defiance, Debutant and Riviera.
MEDALLION Intermediate lavender rose p		DARK ALVODA Dec. 15 P Large decorative. Dark Minstel pink. Sport from Alvoda.
	WHITE	STANDARDS
	8-WEEK VARIET	IES (Pinch July 13)
Responds well under high t disbud programs May 1-Oct.	Oct. 15 S-6 urve. Selection from Pink Chief. emperatures. Standard and fast 15.	WHITE CHIEF No. 2 Oct. 20 S-2 White incurved standard. A selection from White Chief fo improved response, vigor and flowering uniformity. Flower with Yellow Chief. This variety is quite dis-similar and has no known relationship to White Pink Chief.
SILVER SHEEN Intermediate incurve, Septem glass, Tolerates 54°.	Oct. 20 S-5 ber shadings and natural under	
glass. Tolerates 34°,		Small incurve. Used for pots.
	9-WEEK VARIET	IES (Pinch July 20)
SILVER QUEEN White Fuji mum. Stem impospring and fall programs.	Oct. 25 S-2 oves Rayonnante. Valuable for	GRANITE STATE Oct. 25 S-Large white disbud pompon. For pots Oct. 1-July 1.
MARBLEHEAD Medium clear white incurve	Oct. 25 S-4 Durable and responsive. Best ogram May 1-Dec. 1. Standards	MRS. ROBINSON Oct. 25 Intermediate white incurved standard. Beautiful form an heavily petalled. Popular All Saints Day standard as a southern field and cloth house variety.
QUICKSILVER	Oct. 25 P	AMBASSADOR Oct. 25 S-
Large decorative. Pure whit prolific than Wilson's White	e. More durable, uniform and and at least a week earlier than a new standard for large, showy	MOONTIDE Oct. 28 P Medium to small ivory-white standard. Develops into a tightlincurved ball form. More accurately defined in appearance of







incurved ball form. More accurately defined in appearance as

an over-sized Luna flower. Fast growing variety. Highly recommended as a fast disbud from March thru December. With-

stands minimum of 56° in the spring for bud initiation.

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pots averaging five plus breaks and opening all flowers very evenly. Its fast, uniform response makes for an efficient and

profitable variety in any pinched or single stem or pot program.

WHITE STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

9-WEEK VARIETIES (Cont'd)

PATTERSON'S WHITE

Nov.

Large white semi-incurve. Selection from Wilson's Yellow. Principal advantages over Wilson's White are its greater resistance to blackening of centers. Fine for single stem pots in spring, summer and fall.

POITEVINE SUPREME

Nov.

Intermediate white incurve. Wilson's White restyled and formalized. It is characterized by a completely incurved form. Petals are broad, incurved and not reflexed or twisted. Habit is a little more compact. A very fine single stem pot variety.

WILSON'S WHITE

S-7 Nov. 1

Intermediate pure paper white pot plant variety for March 1-Dec. 1.

MALOU (Y)

Nov.

Intermediate incurve. Chalk white. Extremely short habit and strictly a pot variety. Pinched crops require high light environments. Best as a single stem pot where its beautifully rounded, incurved form has unlimited appeal. Fine also for small units grown single stem in 3" pots. In pots it solves the height and uniformity problems of Indianapolis White during its recommended period.

THEMESONG

Nov. 1

Medium semi-incurved ivory-white standard. Possesses Good News substance and durability, but slightly smaller in size. Adapted especially for summer light, high temperature periods and intolerant of less than 60° for initiation. Vigor often surpasses that of Good News in mid-summer. Very resistant to petal burn. Recommended as a fast disbud and medium sized standard in summer programs.

QUEEN'S LACE

Nov. 1 S-5

Spider. Standard program March 15-Nov. 15. Pots Sept. 15-July 1. Fast disbuds April 1-Nov. 15.

ALBATROSS

Nov.

Large incurve. Tolerates 54°. Important west coast variety. Greenhouse Sept. 15-Nov. 15.

WHITE MARY GARDEN

Nov. 1

White sport from Mary Garden. Spider, Tinges at low temperatures. Greenhouse May 1-Nov. 1.

LUNA

Nov. 1

5.3

Small light cream incurve. Tolerates 54°. Compact and uniform. Versatile pot plant variety throughout the year.

10-WEEK VARIETIES (Pinch July 27)

GIANT BETSY ROSS

Nov. 5.

Nov.

NIGHTINGALE

Nov. 5

Large incurved sport of Betsy Ross. Requires high temperatures Chartreuse green spider. Very popular West Coast novelty. for initiation and development. Standard programs June 15-

WHITE RAYONNANTE Spider. Straight tube.

S-5

New Variety Growers Agreement

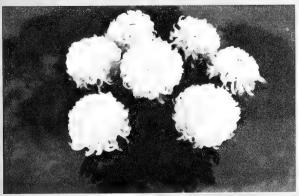
INDIANAPOLIS WHITE

Large incurve, Tolerates 54°, Standards Sept. 15-June 15.

Disbuds the year round.

(A) Growers Agreement





Malou







WHITE STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price
							_

10-WEEK VARIETIES (Cont'd)

IMP. IND. WHITE

Selected for, and provides a very significant reduction of

winter quilling in comparison with the original parent variety. During the winter, depth of flower is greater and incurvature improved. Proven to be devoid of pink tinges at low finishing temperatures. Slight ivory overcast until full maturity. This is

IND. WHITE No. 3

Imp. Ind. White it does not guill under winter low light and temperature conditions. Noticeably larger than the Improved, of whiter color, and superior in its form retention and depth of white color, and superior in its form retention and depth of flower. It is, by all measurements, the best selection to date from Indianapolis White. Dependable Bantamum.

OREGON Nov. 5

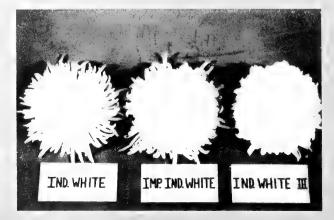
Large white semi-incurve. Exclusively a pot plant variety. Stronger habit, larger and more beautiful flower than Wilson's White. Compact, short, rigid growth and vigorous breaking action. Flowers develop most rapidly when finished at 60° or less. Will rapidly become the favorite white mum for pots. Does not blacken its centers during the winter months. Also excellent for single stem pots in recommended period.

OREGON TRAIL

Large semi-incurved. Light yellow resembling the variety Luna in color. Sport from Oregon. Has the same habit and response as its popular parent. Color is a smooth, pleasing shade that is quite resistant to fading, Superb single stem variety in recommended period.

New Variety New Variety Growers Agreement

(A) Growers Agreement



Nov. Large pure white reflexed standard, Requires high summer temperatures for best response and developmnt. Supplement for Betsy Ross. More durable, strong growth and heavy petallage. Shaggy, interesting new form. Standard programs July

SUSAN LEIGHTON Nov. 6 Large ivory white spider. Standard Oct. and Nov. Intolerant of low light intensities. Finish cool, Supplements Queen's Lace with a much showier flower.

Intermediate ivory white tightly incurved standard. Vigor and habit resembles Mefo. Hard flower, durable and tolerant of heat in summer, Requires high light intensities, Standard and fast disbud programs April 1-Nov. 8. A more durable shipper to supplement Betsy Ross in the summer program.

JEAN ELIZABETH Large semi-incurve sport of Orchid Queen.

CRYSTAL QUEEN Nov. 10 A sport of Orchid Queen that improves Jean Elizabeth in clarity of color and compactness of flower. Standards Sept. 15-July 1.

WHITE POCKETT Nov. 10 Large incurved exhibition.

Large ivory incurve. Tolerates 56°. Standards Sept. June 15.

MONUMENT Nov. 10 Intermediate ivory incurve.

WHITE YAMANE Nov. 10 Large disbud spider. Pure white. A West Coast variety.

Large white incurve. A very late 10-week or early 11-week variety. Relatively short, stocky growth that should receive 10-week treatment to obtain desired stem length. Markedly

excels the size and form of winter Ind. White, and usually flowers about 7 days later in either a lighted or shaded program. Maximum perfection is obtained in the November thru mid June standard programs.

AVAILABLE APRIL 1, 1959



WHITE STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		11-WEEK V	ARIETIES	(Pinch Au	igust 3)		
STERLING Large pure v	white incurve.	Nov. 15	S-2	WHITE FRIC Intermediate peratures.		· Nov. 20 it. Tinges pink at low	S-1 tem-
MARKETEER Intermediate	chalk white incurve.	Nov. 18	S-5	INDIANA /		Nov. 20	S-1
		12-WEEK VA	RIETIES	(Pinch Aug	gust 10)		
•	white decorative. Star			WHITE MIS		Dec. 5 esults require 50° finish	S-1
	ntolerant of low tem n; 55° for bud deve		um for	SMITH'S W	HITE semi-incurve.	Dec. 10	S-6
CHATTANO Large pure	OGA white incurve. Standar	Nov. 25 d Nov. 1-April 1.	S-5	DECEMBER		Dec. 15	S-3
DECEMBER		Dec. 1	S-4	Intermediate	e incurve.		1
MARGARET	MOELLER incurve. Short habit.	Dec. 3	S-3			Dec. 20 requires 60° to initiate	S-2 and

YELLOW STANDARDS

8-WEEK VARIETIES (Pinch July 13)

	O-AAFEK A	AKILIILS	(Finch 301) 10)		
HARVEST GOLDEN	Oct. 15	S-3	SUNBURST	Oct. 2	0 S-1
Large deep golden yellow decorative. sive. Fast disbuds April 1-Nov. 1.	Very colorful,	respon-	Intermediate golden yellow reflexed prolific. Pots and fast disbuds May		
GOLD LODE	Oct. 15	S-2	MRS. KIDDER	Oct. 2	0 S-4

Intermediate lemon yellow reflex. Garden and greenhouse disbud.

Oct. 15 Small deep lemon yellow semi-incurve. Fast disbuds May 1-

YELLOW CHIEF Lemon yellow incurve. Sport of White Chief. Short habit of growth.

Large golden yellow incurve. BUTTERBALL Intermediate deep lemon incurve.

BLAZING GOLD Oct. 23 Intermediate semi-incurve, Valuable for spring pots, Tolerates 54° with slight bronzing. Standards and fast disbuds April 1-

9-WEEK VARIETIES (Pinch July 20)

MECCA 🖤 Oct. 25 large incurved standard. Deep lemon yellow. Tall, vigorous growth habit well suited to standard and fast disbud programs but should not be crowded. Withstands burning. Its tight, beautifully incurved form is reminiscent of Penrod. A

useful supplement to the White Pink Chief series. New Variety New Variety Growers Agreement YEL. MARBLEHEAD

Nov. 1.

Oct. 25

Medium lemon-yellow incurve, Sport of Marblehead, Recommended for standard and fast disbud programs. The Marbleheads require the high light, high temperature combination to achieve maximum stretch and flower size.

(Growers Agreement



Gordon Wells



Yellow Shoesmith



YELLOW STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

9-WEEK VARIETIES (Cont'd)

MRS. WOLFE

Large incurve. Lemon yellow. Of Yellow Chattanooga size and color. Almost an exhibition of short habit and remarkable response uniformity. Its place is exclusively in single stem pot culture where 6-8" blooms are obtained. Does not burn. Mrs. Wolf provides greater dependability of performance as single stem pot specimens than previously had with Ind. Yellow.

SUNGIOW Oct. 25 **S-2** Large golden yellow incurve.

GEORGIA Oct. 25

Intermediate dark yellow incurve. Dwarf and compact. Improves Blazing Gold in the pot plant program. Intolerant to low light intensities. Tolerates 54°.

YELLOW AMBASSADOR Oct. 25

Intermediate light lemon yellow incurve.

LUYONA Oct. 25

Large yellow spider mum with quality blooms and fine stem. Standard and fast disbud program throughout the year.

YELLOW LACE Lemon yellow sport of Queen's Lace. Standard program March 15-Nov. 15. Pots Sept. 15-July 1. Fast disbuds April 1-Nov. 15.

GOLD LACE Golden yellow sport of Yellow Lace.

YEL. ALBATROSS Nov. 1

Large incurve. Lemon-yellow sport of Albatross. Primarily a West Coast variety possessing better than average shipping qualities. Suitable for mid September thru mid November standard programs.

WILSON'S YELLOW Yellow sport from Wilson's White.

GOOD NEWS Nov. 1 Large deep yellow incurve. Tolerates 54°. Outstanding summer

and fall variety. Standard April 1-Nov. 1.

YELLOW IVANHOE Golden yellow sport. Fast disbuds the year around.

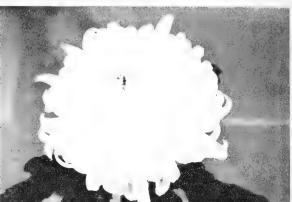
10-WEEK VARIETIES (Pinch July 27)

EXPLORER &

Large incurved standard. Deep yellow. A Good News seedling with all its low temperature tolerance, improved vigor and uniformity. A faithful performer from late September through early July in non-cooled greenhouses in Ohio. Excessively high temperature finishes cause some flower malformation. but superb with cool finish. Petallage has substance and is resistant to burning. One of the most promising of recent standard introductions that performs well between the period when Indianapolis starts to burn and the period when Good News is successfully flowered.

(Y) New Variety (YA) New Variety Growers Agreement

AVAILABLE APRIL 1, 1959



Explorer

CAPRICORN Y

Large decorative standard. Color of Yellow Delaware. Essentially a pot variety, and the first good seedling to attain the objective of full flower closure on Yellow Delaware. Retains the Delaware habit, but is more uniform and responsive at high temperature periods. Its large flower is well suited for both pinched and single stem pots. While it will bronze if finished cold, it is a top ranking yellow for high light and high temperature periods.

IMP. YEL. RAYONNANTE Nov. 5 A clear yellow selection of Yellow Rayonnante with increased size and improved form.

Growers Agreement



Mrs. Wolfe



YELLOW STANDARDS

		Normal				Normal		
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price	
				-			-	

10-WEEK VARIETIES (Cont'd)

CHAIRMAN Large golden yellow decorative. Standard and fast disbud programs May 1-Jan. 1.

IND. CREAM Nov. Large incurve. Cream yellow. Sport from Ind. White. Taller and more vigorous than Ind. Yellow and a few days slower response. At a peak of use and value in spring and fall standard, fast disbud and bantamum programs.

IMP. INDIANAPOLIS YELLOW Nov. 5 Light golden yellow selection of Ind. Yellow. Displays best form for yellow Indianapolis varieties in winter crops. Standard Sept. 15-June 15. Disbuds the year around.

INDIANAPOLIS YELLOW 5-8 Large lemon yellow incurve.

INDIANAPOLIS GOLD Nov. 5 Large incurved standard. Color intensifies the present Dark Ind. Yellow. Same growth habit and flower size.

DARK INDIANAPOLIS YELLOW Nov. 5 Slightly shorter in growth habit than Ind. Yellow. Best response. Deep lemon yellow

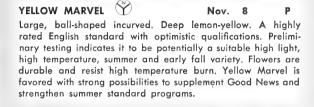
YELLOW BETSY ROSS Intermediate lemon yellow incurve. Exhibits some high temperature tolerance of parent variety. Shorter growth habit. Restrict flowering to under glass July 1-Oct. 1.

YELLOW RAYONNANTE Nov. 5 Yellow sport of Rayonnante. Straight tube. Requires high light and low temperature for strong stems.

YELLOW LEIGHTON S-2 Large spider tube and hook. Lemon yellow sport of Susan Leighton.

New Variety New Variety Growers Agreement

AVAILABLE APRIL 1, 1959



GOLDEN CALYPSO Nov. 3 Large incurve. Deep golden yellow sport from Yellow Calypso.

YELLOW CALYPSO Large lemon yellow incurve. Very short. Exclusively a pot plant variety April 1-July 1; Sept. 1-Dec. 1. Sport of Bronze Calypso.

YELLOW DELAWARE Nov. 8 Intermediate deep lemon yellow incurve sport from Delaware. Pot plant programs the year around. The same valuable chassis in a brilliant new color.

GORDON WELLS Nov S-3 Intermediate lemon yellow incurve.

YELLOW QUEEN Nov. 10 S-5 Large light lemon semi-incurved. Standard Sept. 15-July 1.

YELLOW POCKETT Large light lemon incurved exhibition.

YELLOW MEFO Nov. 10 S-7 Large deep lemon incurve, Standard Oct. 1-June 15.

A cream colored sport from Mefo. Standard Sept. 15-June 15.

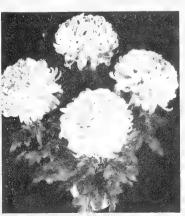
YELLOW MONUMENT Nov. 10 Intermediate light lemon incurve.

Best form of the yellow Mefo's. Tolerates 56°.

Growers Agreement



Yellow Marvel



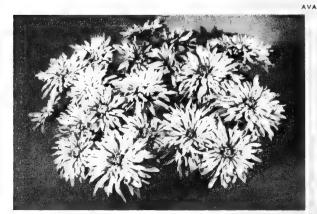
Mrs. Palmero (Page 139)





YELLOW STANDARDS

Variety Description	Normal Flowering Date	Price	Variety Description	Normal Flowering Date P
	10-WE	K VARI	ETIES (Cont'd)	
SCEPTER 🏵		_ ,	· · · · · · · · · · · · · · ·	
Large decorative. Deep golden yel bronze with low temperature finish. (Deluxe for size and form. Similar brev but shorter in habit. Ideally suited well as the six-inch pot.	Constitutes a yello aking action and :	w pink spread,	GOLDEN FAVOURITE Large semi-incurved standard. Brig and durable. Seemingly resistant Short habit is benefited by an add News size and form. Should hand tial for West Coast crops. Too sho	to high temperature bu ditional long day week. He le like Albatross with pote ort for northern winter p
GOLDEN SHOESMITH Intensified color sport of Yellow Fred	Nov. 12 Shoesmith.	P	grams. A striking single stem po- periods.	t variety during high lig
YELLOW SHOESMITH Large Yellow incurve. Richly colored :	Nov. 12 sport of Fred Sho	P esmith.	YELLOW WAIKIKI Large spider. Clear lemon-yellow	Nov. 13 S sport from Waikiki.
	11-WEEK V	ARIETIES	(Pinch August 3)	
LORRAINE Lemon spider, Hooked tube,	Nov. 15	S-1	FRIENDLY RIVAL Intermediate intense golden yellow	Nov. 20
YELLOW MARKETEER Yellow sport from Marketeer.	Nov. 18	S-2	HARVESTER Intermediate deep lemon yellow in	Nov. 23 Sacurve. Valuable for Than
BONNAFFON DELUXE Intermediate deep lemon incurve. Nur year-round culture. Requires 65° for	Nov. 20 nber one pot vari uniform bud ini	S-9 ety for tiation.	giving. MARIE DePETRIS Intermediate deep yellow incurve.	Nov. 23
	12-WEEK VA	RIETIES	(Pinch August 10)	
YELLOW PETER JOHN Large light lemon ýellow decorative.	Nov. 25	S-2	SUNGOLD Large lemon yellow incurve. Used	Nov. 25 \$
DARK YELLOW CHATTANOOGA Deep lemon sport.	Nov. 25	S-4	YELLOW GLORY Intermediate lemon yellow incur	Dec. 1 S rve. Color mutation fro
YELLOW CHATTANOOGA Large light lemon incurve.	Nov. 25	S-3	December Glory, GOLDEN MRS. ROSS Large deep lemon incurve,	Dec. 3
GOLDEN PEARSON Intermediate light lemon incurve.	Nov. 25	S-3	GOLDEN MOELLER Sport of Margaret Moeller.	Dec. 3 P
	13-WEEK VA	RIETIES	(Pinch August 17)	
CHALICE arge lemon incurve.	Dec. 5	S-1	METEORE	Dec. 13 S
TOBIN'S YELLOW Intermediate deep lemon semi-incurve.	Dec. 10	S-5	Intermediate deep lemon semi-incur	ve.
SMITH'S CREAM WHITE A beautiful smooth cream colored spe	Dec. 10	S-2	DAUNTLESS Small golden yellow semi-incurve.	Dec. 13 S
special strain solored spe	New V		New Variety Growers Agreemen	t Growers Agree





Golden Favorite



S-1

BRONZE & RED STANDARDS

		Normal				Normal	
Variety	Description	Flowering Date	Price	Variety	Description	Flowering Date	Price

8-WEEK VARIETIES (Pinch July 13)

MAYFORD'S TRIUMPH

Oct. 15

Large orange bronze decorative, Fast disbuds May and June.

AMBER BRIGHT

Large golden bronze decorative. Fast disbuds April 1-Dec. 1. Fine yellow disbud at high temperatures.

MAYFORD TITAN

Intermediate incurved standard. Intense golden bronze. When finished cool it approaches Detroit News color. Superb form with News durability and substance. A tall, vigorous variety best grown on a pinched crop basis reaching its peak of perfection in May and June. Summer conditions induce crownish budding. An outstanding fast disbud, medium sized standard and bantamum for recommended periods.

9-WEEK VARIETIES (Pinch July 20)

HILDA BERGEN

Small reddish bronze incurve.

ZYLON (Y) Oct. 25

Internediate semi-incurve. Intense crimson red. Outstanding for color retention and resistance to fading. Usefully adapted to shading in fast disbud or small standard programs.

RED GLITTERS S-1 Red sport of Glitters.

MRS. PALMERO Oct. 28

Large semi-incurve standard, Maroon red, Responsive at all periods with excellent uniformity. Resemblance to Oak Leaf in size and form is strong. Stem is rigid and polished foliage attractive. Dependable, and easily done as a standard. It also shapes up well as a single stem pot in recommended periods.

BRONZE PALMERO Oct. 28 Large semi-incurve. Coral bronze. Sport from Mrs. Palmero.

DETROIT NEWS Nov. 1 Large reddish bronze incurve. Finish cool. Best all around bronze standard April and May; Sept. 15-Nov. 1.

ROYAL BRONZE Intense orange bronze decorative. For pots Sept. 1-Dec. 1.

New Variety (A) New Variety Growers Agreement

Copper bronze spider with strong stem.

IVANHOE S-3 Small reddish bronze incurve. Fast disbuds Sept. 15-July 1.

APRICOT QUEEN Large golden orange incurve.

DUCHESS

Medium to large bronze spider mum, sometimes called "Spindles" mum. Duplex form. All petals are straight and tubular. Good flower substance.

ALEX COLSON

Large decorative. Intense orange bronze. A Royal Bronze color. Spreads well. breaks and responds uniformly. Excellent foliage. A vivid color that holds well in all periods. Best suited to pinched pot programs. A 9-week spring, summer and fall version of Calvert's Gold that completes the year round availability of this outstanding color.

FRED YULE Nov. 3

Intermediate glowing orange bronze incurved standard. Establishes a new color standard. Fine addition to the standard and fast disbud crops in May and June also Sept.1-Dec. 1. Vegetative during the winter months,

(A) Growers Agreement



Duchess



Mayford Titan

grams Sept. 15-June 15.



BRONZE & RED STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
		10-WEEK	VARIETIES	(Pinch July	28)		
	RWOOD nze Rayonnante).	Nov. 5	S-3	INDIANAPOLI Large incurve.		Nov. 5 d disbud program Sep	S-6
NOMAGO Light bronz		Nov. 5	S-1	June 15.			
MAMORU Nov. 5 S-1 Buff copper spider.		Intermediate w		Nov. 5 onze incurve. A more ve nze. Size slightly smaller;	rsatile		
VULCAN	Ÿ	Nov. 5	Р			lisbud Sept. 15-June 1,	
Star. In fa brighter m	orative. Crimson red. All, winter and spring pore intense red. Dulls thing growth features ma	ot programs, the co o rapidly at high t	olor is a empera-	Dark reddish	NAPOLIS BRON	IZE Nov. 5 Standard and fast disbut	S-6 d pro-

RED STAR Nov. 5 P

to supplement Valentine, and add greatly to the Christmas

season.

Large decorative. Red to reddish bronze. Dwarf pot habit. A profuse an dwire-angled breaking habit contributes to a shapely plant. Flowers are large and double. One of the very best for a bronze in summer pot programs. Equally good for single stem pots in its recommended period.

COSSACK Nov. 5 P

Large decorative standard. Intense crimson red. Principal advantages are for single stem pot programs where it achieves unmatched size and color. Variety is sometimes reluctant to break from a pinch. Single stem, plant and shade pots for Christmas suggest important competition for poinsettias.

SANDROCK Nov. 5 P

Small formal standard. Light bronze. Color of Indianapolis Apricot. Essentially a pot variety with a dwarf, responsive habit and excellent foliage. Pinched crops require high light conditions. Single stem pots are good the year round. Flower is hard and tightly incurved. Almost a true yellow under summer temperatures.

New Variety New Variety Growers Agreement

AVAILABLE APRIL 1, 1959



Incurved Delaware

DELAWARE Nov. 8 S-9

A large reddish bronze semi-incurved standard. Outstanding for pot plants Sept. 1-June 1.

INCURVED DELAWARE Nov. 8 P
Large standard. Tightly incurved for mutation from Delaware.

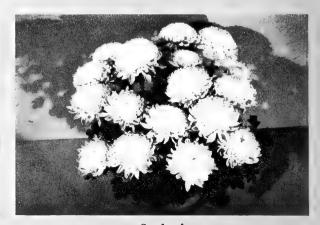
BRONZE CALYPSO Nov. 8 S-3

Large, rich orange-bronze incurve and very short. Exclusively a pot plant variety April 1-July 1; Sept. 1-Dec. 1. Single pinch. Best results are obtained with high temperature initiation and low temperature development. Flower size and form closely resembles the Indianapolis varieties.

ANACONDA Nov. 8 S-3
Large red bronze incurve.

BRONZE ORCHID QUEEN Nov. 10 S-2
Buff coral bronze sport. Standards, Sept. 15-July 1.

Growers Agreement



5.2

Nov. 13

Nov. 13

	B 1.0	Normal Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
Variety	Description	riowering Date	Frice	v unery	Buscingitoti		

10-WEEK VARIETIES (Cont'd)

GARNET KING

MRS. ROY

Dec. 1.

WAIKIKI

Intermediate deep crimson red reflex.

Spider. Red bronze tube. Yellow tips.

WOKING SCARLET Nov. 10 Large decorative standard. Brilliant scarlet bronze. An exciting combination of color and habit for pots. Its living color glows, and will rapidly achieve top status along with Oregon and the Delawares as standard pot varieties. Endowed with sufficient vigor to be effective with plant, shade and an 18 day delayed pinch procedure. Equally striking as a single stem pot. A close proximity to the popular Poinsettia-red. This is it!

7 12 7 1, 10

COPPER QUEEN Large copper bronze incurve sport of Orchid Queen. Larger flower and more vigorous than Bronze Orchid Queen. Standard programs Sept. 15-July 1.

11-WEEK VARIETIES (Pinch August 3)

Nov. 18 MRS. EISENHOWER A vivid golden bronze spider mum with excellent substance and form.

BALCOMBE PERFECTION Nov. 18 Intermediate incurve. Copper bronze. Short variety benefited by two additional weeks time pinch to shade. Standard programs mid October through November. Very valuable for its natural Thanksgiving season.

RED BALCOMBE PERFECTION Intermediate incurve. Bright red with copper bronze reverse. tional long day weeks pinch shade. Standard programs mid October through November. Outstanding for Thanksgiving.

Nov. 20 CALVERT'S GOLD Intermediate golden bronze semi-incurve. Standard and fast disbud Oct. 15-May 1. Pot plants Oct. 1-May 1.

Intermediate salmon bronze incurve.

BRONZE FRICK

VALENTINE Large red disbud decorative. With one additional week pinch to shade Valentine provides fine medium size standards October through April. Significantly valued as an all winter pot plant with tall treatment especially appropriate for Christmas and Valentine's Day. In regular crops, dissprayed to 3-4 flowers, it yields the equivalent of a red Goldsmith. Will initiate and develop buds at 52°

Large red with copper reverse incurve. Standards Sept. 1-

CALVERT'S ORANGE Nov. 20 Large semi-incurve. Sport of Calvert's Gold. A capitivating reddish-orange. Habit is slightly shorter than Calvert's Gold. Essentially a pot variety that provides a Royal Bronze color with size and strong habit for northern pot plant programs through the fall and winter months.

BEACON TO Nov. 20 Large semi-incurve. Rich reddish bronze with gold reverse. Has all the substance and durability of Detroit News with intensified and improved color retention. Moderately short and benefited by an aditional long day week. Shades well and shows outstanding merit for the fall and Thanksgiving season.

Intermediate deep crimson incurve. Copper reverse.

12-WEEK VARIETIES (Pinch August 11)

Nov. 25 BRONZE PETER JOHN Large salmon rust suffused with yellow decorative. Intolerant of low temperature 60° minimum for bud initiation; 55° for bud development.

GLADYS PEARSON Nov. 25 Intermediate light copper bronze incurve.

New Variety New Variety Growers Agreement AVAILABLE APRIL 1, 1959

MUTO'S CRIMSON

SEE PRICE LIST ON PAGE 143

Nov. 25

S-2

(A) Growers Agreement

Intermediate copper incurve.



Cossack



Valentine





PINK STANDARDS

Variety	Description	Normal Flowering Date	Price	Variety	D	escription	Normal Flowering Date	Price
		8-WEEK V	/ARIETIES	(Pinch	July 1	3)		

PINK CHIEF Oct. 15 MAJOR BOWES Oct. 15 **S-2** Large lavender incurve. Tall. Excellent in natural season. Intermediate lavender incurve. Short.

9-WEEK VARIETIES (Pinch July 20)

BLUE RIBBON BUNBU Nov. 1 Nov. 1 Small bright lavender pink incurve standard. Color markedly Large, fully double, spooned tip spider. Medium lavender pink improves Queen of Pinks especially during high temperature color. Extreme vigor permits the reduction of one long day periods. Responds sharply and develops well at 56° with adweek from the 9-week schedule. Is a dependable performer in ditional stretch. either the standard or fast disbud program from April thru November. Often requires some shade protection during the finishing period to prevent petal tip burn.

MARY GARDEN Nov. 1 5-3 BRIDESMAID Y Nov. 1 A pink spider. Tube. Large spider. Light lavender pink. Dwarf, compact habit combined with good breaking action, spread and uniform response make for a superior pink spider available to pinched pot QUEEN OF PINKS programs. For best summer color, crops should be grown **S-5** in air cooled units.

10-WEEK VARIETIES (Pinch July 27)

J. W. PRINCE VANGUARD (Intermediate lavender pink incurve. Large incurved standard. Bright lavender pink. A vigorous **RAYONNANTE** Indianapolis seedling with vastly superior color retention under Spider. Tube. high temperatures. Should not be crowded, and is best suited to high light periods. It is tops in May and June standard and fast disbud programs.

> INDIANAPOLIS PINK Large incurve. Tolerates 54°. Standards and fast disbuds Sept. 15-June 15.

ORCHID QUEEN Nov. 10 Large light orchid pink semi-incurve. Standard Sept. 15-July 1.

Growers Agreement

LOUBENS Nov.

Small incurve. Excellent for pots Sept. 1-May 1.

Large incurved standard. Deep lavender pink. Very short habit for pots. Overcrops when pinched but the best pink available for single stem pot programs. Its size, color and form are close to ideal for this purpose. A complete manifestation of qualities that single stem pot culture demands.

New Variety

New Variety Growers Agreement





Vanguard



PINK STANDARDS

Variety Description	Normal n Flowering Date	Price	Variety	Description	Normal Flowering Date	Price
	10-WE	EK VAR	IETIES (Con	t'd)		
	Nov. 10 I Queen. Flowers more compo hat of Dark Orchid Queen. Sta		growing vo worthy supp PINK POC	um lavender pink dec riety that will tolera plement to standards o	Nov. 10	
DARK ORCHID QUEEN Large deep lavender	Nov. 10 semi-incurve. Standards Seg	S-5 ot, 15-	PINK YAN	•	Nov. 10	S-2
	Nov. 10 der pink semi-incurved disbud igh temperature finishing. Tall		Large incur mum color and respon and Christr	expression obtained se are identical to po	Nov. 12 from Fred Shoesmith. only with cool finish. arent variety. Best in lo esmith and all of its n as pinched crops.	. Habit ate fall
	11-WEEK V	ARIETIES	(Pinch Au	ugust 3)		
ARISTOCRAT Intermediate lavender in Natural season programs	Nov. 15	S-1 g stem.	ROSE DELI Intermediate	GHT e to small semi-incurve well suited to fast dis	Nov. 20 Lavender rose, Strong bud and standard pr luable color for Thanks	ograms
			HELEN FRI		Nov. 20	S-2
	Nov. 17 nk suffused with salmon			VING PINK e orchid pink reflex.	Nov. 23	S-3
	programs November and De- ent for bud development. Ric iving season.		ED. SEIDEN Intermediate bud Nov. 1	e smooth lavender in	Nov. 23 curve. Standard and f	S-2 ast dis-
	12-WEEK V	ARIETIES	(Pinch Au	gust 10)		
	Nov. 25 decorative. Best size of Peter ature. 60° minimum for bud in			K PETER JOHN orchid pink decorative	Nov. 25	S-2

13-WEEK VARIETIES (Pinch August 17)

Intermediate light pink incurve. Finish cool.

		PRIC	E S		
Quantity	S - 9	S - 8	S - 7	\$ - 6	S - 5
50 only	\$3.13	\$3.38	\$3.63	\$3.75	\$3.88
100 — 250	6.00	6.50	7.00	7.25	7.50
300 — 450	5.75	6.25	6.75	7.00	7.25
500 — 950	5.50	6.00	6.50	6.75	7.00
1000 up	5.25	5.75	6.25	6.50	6.75
Quantity	S - 4	S - 3	S - 2	S - 1	P
50 only	\$4.00	\$4.13	\$4.25	\$4.38	\$4.50
100 — 250	7.75	8.00	8.25	8.50	8.75
300 — 450	7.50	7.75	8.00	8.25	8.50
500 — 950	7.25	7.50	7.75	8.00	8.25
1000 up	7.00	7.25	7.50	7.75	8.00

EARNED CREDIT - Above prices are subject to an earned credit discount on orders from customers who are on continuous flowering programs. The percentage of earned credit is determined by order frequency, early ordering, fluctuations in size of order and total number of cuttings purchased and shipped during the year.

All prices are per 100 cuttings, except quantities less than 100. Fifty cuttings are priced per 50.

* Prices effective January 5, 1959.

Prices Subject to Change Without Notice



New Garden Varieties 1959

DEPETRIS INTRODUCTIONS

*SUDAN

Oct. 10

Large golden reflexed decorative. Dark green lush foliage on sturdy stems. Flowers of excellent quality. Outstanding spring pot plant variety either as a 3" or 6" pot. One of the most beautiful large flowering field plants. Improved by disbudding.

HADLEY

Oct 12

Large cream white semi-incurved. Husky sturdy stem with clean cut foliage. Responds well to disbudding. Can be used as an early disbud for normal planting or in the Cloth House through September. Makes an excellent field plant.

MONTEREY

Oct. 8

Large brilliant orange bronze semi-incurved-4" to 5" in diameter. A real beauty when disbudded. Sharp uniform response in early shade program.

*ELMIRA

Oct. 12

Large cream white decorative. Compact and low growing. Eye-catching as a spring or fall garden pot plant. Lovely as a specimen plant or a border planting. One of the best in the group.

SPARTAN

Oct. 15

Large semi-incurved fresh looking white decorative, Responds well in the Cloth House during September or early greenhouse shadings. Improved considerably by disbudding. An absolute must in field plantings where the frost date will permit.

ARABY

Oct. 15

Deep crimson red decorative enhanced by lush green foliage. Its color and flower quality is unexcelled in its response group. Size is much improved by disbudding. Responds well to shade.

ORION

Oct. 5

Large soft yellow decorative. Short growing and compact. One of the loveliest yellow border plantings.

GLENDALE

Sept. 15

Medium yellow pompon. Short growing with a profusion of bloom. Sparkling yellow flowers enhanced by bright green foliage. One of the earliest of the new introductions.

WHITE

*PRINCESS KAY

Sept. 20

Heavy textured alabaster white decorative, strong stems supporting an abundance of flowers. Uniform response as a spring pot plant, overall appearance is very attractive.

*GRANNY LEHMAN

Sept. 20

Pure white decorative with striking form. An excellent variety for spring pots using tall treatment. A very attractive yard or secondary border plant.

QUICKSILVER (H)

Sept. 25

Large creamy white decorative, compact growth and prolific blooming habit.

*JUDY

Sept. 27

An attractive white button pompon. Flower heads are firm and the stems are stiff. Makes a very desirable spring pot plant.

*LARRY

Oct. 1

Medium white pompon, overall habit is short and compact. Strengthens considerably the spring pot plant pro-

GRACE BRADSHAW

Oct. 7

Very large decorative with satiny white petals. A husky vigorous tall growing variety, just right for table bouquets.

BLUSHWHITE

Oct. 7

Large crisp spoon. Chalk white flowers with a layender tint. Complements our selection of white spoons.

YELLOW

GOLD BUTTON

Sept. 10

Medium button pompon of golden yellow with orange centers. Overall appearance is very appealing. A good addition to the early yellows.

GOLDEN FANTASY

Sept. 20

Bright golden carnation type decorative. Vigorous growing habit with an abundance of blooms. Excellent for table bouquets.

New Garden Varieties 1959

SUNDANCE (U.S.D.A.)

Sept. 20

Large lemon decorative that displays a striking mass effect. Long stems suitable for cutting.

BANTAM YELLOW

Sept. 25

Short compact yellow cushion. Beautiful as a border plant.

HILITE

Sept. 25

Large beautiful dahlia flared yellow decorative. Long stems just right for table decorations.

GOLDEN AGE

Large reflexed golden yellow. Very striking when disbudded. Particularly suited for garden cut flowers.

BUTTERSCOTCH (H)

Sept. 26

Huge golden yellow decorative, Tall sturdy stems excellent for cutting.

MARIE HARTMAN

Sept. 28

Large canary yellow decorative. New fresh flowers continually covering the old.

ORANGE

JOHN FURST

Oct. 5

Full medium brilliant orange decorative. Clean cut looking sprays and stems. Excellent for garden cut flowers.

RED-BRONZE

VULCAN

Aug. 24

Medium decorative. Dark red full double flowers on short branchy plants. One of the very earliest garden pompons.

TECUMSEH

Sept. 2

Brick red to buff orange cushion. Short with a compact growth habit.

TRIBUTE

Sept. 14

Large decorative bright daphne red maturing to daphne pink.

BRONZE GIANT

Large bronze decorative, especially suitable for garden cut flower use. Improved by disbudding.

DARK KNIGHT

Sept. 28

Deep red decorative. Ruby crimson to maroon, finishes off in large showy clumps. Holds its color well.

RUTH SCOTT

Sept. 28

Large semi-incurved golden bronze decorative. One of the best and most colorful big mums.

ROYALIST

Oct. 1

Medium velvety ox-blood red pompon, exceptionally nice sprays suitable for cutting.

VINTAGE

Oct. 1

Medium pompon of rich stainy claret to spinet red. Tolerant of cool temperatures.

LAVENDER-PINK

WENONAH

Aug. 24

Soft lavender pompon. One of the very earliest pinks.

TENSLEEP (U.S.D.A.)

Beautiful early rose pink cushion, Extremely hardy prolific blooming habit. Makes an outstanding early border plant.

*MINNPINK

Sept. 20

A lovely rose pink cushion. Very compact with a profusion of bloom. Responds well for 3" or 6" spring pot culture.

GAMMY

Sept. 20

Rose lavender pompon exquisite flower of fine substance and beauty. Extremely high production.

LOVELINESS

Sept. 25

Carmine pink spoon with outstanding flower quality. Compliments our spoon selection.

MARY HARRISON

Sept. 26

Semi-decorative glowing aster purple showing striking yellow centers.

LADY FAIR

Oct. 1

A large decorative cactus type with deep lavender buds. Individual flowers measure 3" and responds nicely to disbudding. Tall growing habit.

CHAMPAGNE

Beautiful ivory shell pink blooms are produced on sturdy stems suitable for cutting.

PURPLE HEART

Sept. 28

A very nice deep purple with a silvery reflex. Retains the color nicely throughout the blooming period.





Garden Varieties

SYMBOLS — (L) Large — (D) Decorative — (P) Pompon — (C) Cushion — (S) Single — (B) Button — (C-F) Carnation Flowered — (Sp) Spoon.

*Recommended for Spring pot plants pinched and short day treatment same day.

D Varieties recommended as better when disbudded.

VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRIC
		WHITE			
Osage	(CD)	White	Short	Sept. 5	s.
Candlelight	(D)	lvory	Med.	Sept. 5	S-
D. D. Ahrens	(D)	White	Tall	Sept. 10	S-
Paper White	(D)	White	Med.	Sept. 10	S-
*Crystal Maid	(DP)	Cream	Short	Sept. 12	S.
*Chris Columbus	(LDP)		Tall	Sept. 15	S.
White Cushion		Cream			S.
*Gloria	(C)	White	Short	Sept. 15	
	(DP)	White	Med.	Sept. 15	S
*Calcite	(D)	Cream	Med.	Sept. 15	S
Powderpuff	(C)	White	Short	Sept. 15	S.
Polar Ice	(D)	White	Med.	Sept. 15	S-
*White Bounty	(BP)	Cream	Tall	Sept. 15	S.
White Tower	(LP)	Cream	Tall	Sept. 15	S-
*Princess Kay	(D)	White	Med.	Sept. 20	P
Benora	(C)	White	Short	Sept. 20	S.
*Granny Lehman	(D)	White	Med.	Sept. 20	P
White Sail	(D)	White	Med.	Sept. 23	S.
White Wonder	(LP)	Ivery	Med.	Sept. 25	S
Jessamine Williams	(Sp)	White	Med.	Sept. 25	S
*Shalimar (H)	(LD)	White	Med.	Sept. 25	S.
Quicksilver (H)	(LD)	Cream	Med.	Sept. 25	P
Theresa Stone	(P)		Med.	Sept. 25	s.
White Rice		Cream	Short		S.
*Ostosa	(LP)	White		Sept. 25	
"USIOSA	(CP)	White	Short	Sept. 25	S.
White Cloud	(D)	White	Tall	Sept. 25	S-
*Judy	(BP)	White	Short	Sept. 27	P
North Star	(S)	White	Med.	Sept. 28	S-
*Pepita	(SBP)	White	Med.	Sept. 28	S-
*Larry	(P)	White	Short	Oct. 1	S-
Spindrift	(D)	White	Med.	Oct. 1	S-
Gardenia	(LD)	White	Med.	Oct. 1	S-
Grace Bradshaw	(LD)	White	Tall	Oct. 1	P
Marshmallow	(S)	White	Med.	Oct. 5	S-
Limelight	(D)	White	Med.	Oct. 5	S-
Hadley	(D)	Cream	Tall	Oct. 5	P.
Lyric	(S)	White	Short	Oct. 5	S-
Avalanche	(LD)	White	Tall	Oct. 5	S-
Horizon	(D)	White	Med.	Oct. 5	S.
Ivory Glow	(L)	lvory	Med.	Oct. 5	S.
Blushwhite	(LP)	•	Med.	Oct. 7	3·
Classic		White			_
Minnesota	(P)	White	Tall	Oct. 10	S-
	(P)	White	Med.	Oct. 10	S-
Maestro	(P)	Cream	Short	Oct. 10	5-
Albion	(LD)	White	Med. −	Oct. 10	S-
White Masquerade	(B)	Silver	Med.	Oct. 10	P
White Spoon	(Sp)	White	Med.	Oct. 10	S-
Silverplate	(D)	White	Med.	Oct. 12	S-
*Elmira	(LD)	Cream	Med.	Oct. 12	P
Michigan State	(LD)	White	Med.	Oct. 14	S-
Spartan	(LD)	White	Tall	Oct. 15	p.
Pilgrim	(P)	White	Med.	Oct. 15	S-
Silver Ball	(LP)	White	Tall	Oct. 15	S-
Irene	(B)	White	Med.	Oct. 15	S-
Blizzard	(P)	White	Med.	Oct. 15	S -
	7	Y ELLO W			
Reverence	(LD)	Chamois	Short	Sept. 1	s-
Early Gold	(P)	Golden	Short	Sept. 5	S-
Golden Hours	(P)	Chrome Yel.	Med.	Sept. 8	S-
Gold Button	(BP)	Golden			



Garden Varieties

	SIZE AND				
VARIETY	TYPE	COLOR	HEIGHT	MATURES	PRIC
	YELLO	OW (Con	t'd)		
Delight (H)	(P)	Golden	Med.	Sept. 12	s
Genista		Canary Yel.	Med.	Sept. 12	S
Sunapee		Deep Lemon	Tall	Sept. 15	S
Pathfinder		Deep Lemon	Med.	Sept. 15	S
*Pomponetie		Orange	Short	Sept. 15	5
Yellow Cushion		Light Yel.	Short	Sept. 15	5
Golden Cushion		Golden	Short	Sept. 15	
Defiance (H)		Golden	Tali	Sept. 15	
*Yel. Chris. Columbus		Brt. Lemon	Med.	Sept. 15	
Muriel Rice			Med.	Sept. 15	
*Early Yellow		Light Lemon	Short	Sept. 15	
		Deep Lemon	Short	Sept. 15	
Golden Carpet		Golden	Med.	Sept. 15	i
Glendale		Yellow		Sept. 18	
Ming		Golden	Med.		i
Golden Fantasy		Golden	Med.	Sept. 20	-
*Sept. Sunshine		Brt. Lemon	Med.	Sept. 20	
*Aglow		Orange-Yel.	Med.	Sept. 20	
Sundance		Lemon	Med.	Sept. 20	ļ
Real Gold		Deep Golden	Med.	Sept. 20	
Wychwood		Canary	Med.	Sept. 20	
Canary Wonder		Canary Yel.	Med.	Sept. 25	:
Bantam Yellow		Yellow	Short	Sept. 25	
Golden Wonder	(LP)	Golden	Med.	Sept. 25	:
Chas. Nye	(LP)	Deep Lemon	Tatl	Sept. 25	
September Gold	(C)	Lemon	Short	Sept. 25	
Golden Sunset	(LD)	Copper	Med.	Sept. 25	
Hilite	(D)	Yellow	Tall	Sept. 25	1
*Honeycomb		Honey Yel.	Med.	Sept. 25	
*Moonlight		Brt. Yellow	Med.	Sept. 25	
Lee Powell		Chinese Yel.	Tall	Sept. 25	
Golden Age		Golden Yel.	Tall	Sept. 25	
Sulphur Spoon		Lt. Yellow	Med.	Sept. 25	
Tangerine		Deep Orange	Med.	Sept. 25	
Butterscotch (H)		Golden Yel.	Tail	Sept. 26	
Astoria			Med.	Sept. 28	
Marie Hartman		Deep Lemon	Med.	Sept. 28	i
		Canary Yel.	Short	Sept. 28	
Yellow Supreme (H)		Brt. Lemon	Med.	Oct. 1	
Ruby Breithaupt		Primrose Yel.		Oct. 1	
Freya		Golden Yel.	Med.		
*Kings Ransom		Golden Yel.	Med.	Oct. 1	
Tranquility		Lemon Yel.	Med.	Oct. 1	
*Chiquita		Deep Lemon	Med.	Oct. 1	
Ethel Waters		Lt. Lemon	Med.	Oct. 5	
James Eadie		Deep Chrome	Med.	Oct. 5	:
Newton		Golden Yel.	Med.	Oct. 5	:
Sudan		Yellow	Med.	Oct. 5	
*Illinois		Brt. Golden	Med.	Oct. 5	3
Yellow Avalanche	(LD)	Lt. Lemon	Tait	Oct. 5	:
Orion		Soft Yellow	Short	Oct. 5	1
Roulette	(LD)	Brt. Yellow	Short	Oct. 5	:
John Furst		Bril. Orange	Tall	Oct. 5	
Polaris		Golden Buff	Med.	Oct. 5	
Mrs. Rotan		Deep Chrome	Med.	Oct. 5	
Sunstone		Lt. Yellow	Tall	Oct. 8	:
*Spode		Brt. Lemon	Short	Oct. 8	
*Yellow Spoon		Lt. Yellow	Med.	Oct. 10	
Treasure		Gelden Yel.	Tali	Oct. 10	
Golden Spoon		Golden Yel.	Med.	Oct. 10	
*Yellow Blankei		Yellow	Med.	Oct. 10	
Bright Forecast		Brt. Lemon	Tall	Oct. 10	
		Lemon Yel.	Med.	Oct. 10	
Yellow Calumet			Med.	Oct. 10	
Arlora		Brt. Lemon		Oct. 12	
Michigan		Clear Yellow	Med.	Oct. 12	
Moonbright		Soft Yellow	Med.		
Sunburst		Golden Yel.	Med.	Oct. 12	
*Gold Lode		Brt. Yellow	Med.	Oct. 15	
Judith Anderson	(B)	Brt. Lemon	Med.	Oct. 15	

Garden Varieties

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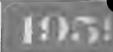
VARIETY	TYPE	COLOR	HEIGHT	MATURES	PRICE
	YELL	OW (Con	t'd)		
The Acid Forms					
Rodell Imp Yellow Irene	(B)	Lt. Lemon	Med.	Oct. 15	S-6
*Ohio State (H)	(B)	Lt. Lemon	Med.	Oct. 15	S-3
Honeysweet	(Cactus) (L-Inc.)	Golden Yel. Golden Yel.	Med. Med.	Oct. 15 Oct. 15	S-1 S-4
Sarasota	(P)	Brt. Lemon	Med.	Oct. 15	S-4
*Iowa	(Inc.)	Brt. Lemon	Med.	Oct. 15	S-1
	BRON	IZE and	RED		
Vulcan	(D)	Dark Red	Short	Aug. 24	P
Tecumseh	(C)	Brick Red	Short	Sept. 2	P
Glow Worm	(C)	Or. Scarlet	Short	Sept. 8	\$-4
Early Harvest	(C)	Mah. Orange	Short	Sept. 8	S-2
Harbinger	(LD)	Golden Br.	Short	Sept. 8	S-3
*W. P. Snyder	(P)	Apricot Or.	Med.	Sept. 10	\$-1
Aufumn Song	(D)	Wine Rose	Med.	Sept. 10	S-4
Geo. Luxton	(LD)	Lt. Brozne	Med.	Sept. 12	S-4
Tribute	(LD)	Daphne Red	Med.	Sept. 14	S-2
Bronze Pomponette	(P)	Golden Br.	Short	Sept. 15	S-3
Early Crimson	(D)	Brt. Crimson	Med.	Sept. 15	S-6
Apache	(LD)	Red & Gold	Med.	Sept. 15	S-4
Early Bronze	(B)	Orange Br.	Short	Sept. 15	S-6
Red Gold		Red & Gold	Med.	Sept. 15	S-5
Dark Red Gold	(B)		Med.		S-5
New Marjorie Mills	(B)	Dark Red	Short	Sept. 15	S-3
	(LP)	Ruby		Sept. 15	
Flamboyant	(D)	Orange Br.	Med.	Sept. 15	S-4
Early Kathleen	(D)	Coppery Br.	Med.	Sept. 15	S-4
Companion	(D)	Golden Br.	Med.	Sept. 15	S-3
Autumn Beauty	(D)	Chestnut Red	Med.	Sept. 15	S-4
September Bronze	(B)	Golden Br.	Med.	Sept. 20	S-6
Toronio	(C)	Bronze	Short	Sept. 20	S-2
Bronze Queen (H)	(C)	Copper Br.	Short	Sept. 20	S-5
Red Glow	(P)	Dark Red	Med.	Sept. 20	S-5
Orsona	(P)	Reddish Br.	Med.	Sept. 20	S-4
Scarlet Crimson	(D)	Bright Red	Med.	Sept. 20	S-5
Mme. Cadillac	(LP)	Raspberry	Short	Sept. 20	5-4
Bronze Giant	(LD)	Bronze	Tall	Sept. 22	P
Rouge Cushion	(C)	Bright Red	Short	Sept. 25	S-5
Br. Wonder	(P)	Bronze	Med.	Sept. 25	S-4
Plainsman	(D)	Golden Br.	Med.	Sept. 25	5-4
Crown Jewell	(D)	Bright Red	Short	Sept. 25	S-4
Champion Cushion	(C)	Deep Bronze	Short	Sept. 25	S-7
Commander Cushion	(C)	Red	Short	Sept. 25	S-7
Alpena	(D)	Dark Red	Med.	Sept. 25	S-4
Mahogany Cushion		Red	Mea. Short		S-7
Elife Cushion	(C) (C)	Kea Salmon Br.	Short	Sept. 25 Sept. 25	3-7 S-7
Holiday (H)					
Football Bronze	(LD)	Golden Br.	Med.	Sept. 25	S-4
Commercials	(D)	Bronze	Tall	Sept. 25	S-4
Coppersmith	(DP)	Copper Br.	Med.	Sept. 25	S-4
Mojave Gold	(LD)	Golden Br.	Med.	Sept. 26	S-2
Crowning Glory	(D)	Coral Bronze	Med.	Sept. 28	S-4
Dark Knight	(D)	Deep Red	Med.	Sept. 28	P
Remembrance	(D)	Dk. Carmine	Med.	Sept. 28	\$-2
Lipstick	(C)	Ruby Orange	Short	Sept. 28	S-3
Kath. Lehman	(LD)	Orange Br.	Med.	Sept. 28	S-4
Ruth Scott	(D)	Golden Br.	Tali	Sept. 28	P
Morocco	(C)	Reddish Br.	Short	Oct. 1	\$-1
Caprice	(LD)	Apricot Br.	Med.	Oct. 1	S-4
Admiration	(D)	Salmon	Med.	Sept. 28	S-6
Iron Mountain	(P)	Deep Red	Med.	Oct. 1	S-5
Jubilee (H)	(P)	Crimson Red		Oct. 1	S-4
Fiesta			Med.		
	(P)	Orange Rust	Tall	Oct. 1	S-5
Red Cloud	(C)	Scarlet Red	Med.	Oct. 1	5-6
Red Riding Hood	(D)	Bright Red	Med.	Oct. I	S-4
Sam Williston	(C)	Deep Red	Short	Oct. 1	5-7

Garden Varieties

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	SIZE AND		11516117	AA A TUDES	DDI
VARIETY	TYPE	COLOR	HEIGHT	MATURES	PRI
BRO	NZE	and RED	(Cont'd)		
Leshara		Mulberry	Med.	Oct. 1 Oct. 1	S
Bonfire		Bright Red	Med.	7 ***	F
*Red Mischief		Deep Red	Short	Oct. 1 Oct. 1	i
Royalist		Ox-Blood_	Med.		
Fire Engine		Flaming Red	Med.	2 ***	i
Vintage		Claret Red	Med.		
Card. Spoon		Red Bronze	Med.	Oct. 5 Oct. 5	
Firecracker		Mah. Bronze	Tall Tall	Oct. 5	
Cydonia		Mah. Bronze	Med,	Oct. 5	
*September Cheer		Cherry Red	Tali	Oct. 5	
Burgundy		Wine Red	Med.	Oct. 5	
*Red Velvet		Dk. Crimson	Med.	Oct. 5	
*Mona		Rust Bronze	Med.	Oct. 5	
Indian Red		Rust	Med.	Oct. 5	
Courageous		Ruby Red	Tall	Oct. 5	
*Mrs. Du Poni		Coral Buff	Tall	Oct. 8	
Monterey		Bril, Orange	Tall	Oct. 8	
Andanie		Peach Apricot	Tall	Oct. 8	
Araby		Crimson	Med.	Oct. 8	
Aviator		Copper	Med.	Oct. 10	
Gladiator		Orange Red	Med.	Oct. 10	
Calumet (H)		Apricot Bronze	Med.	Oct. 10	
Dark Calumet (H)		Golden Br.	Med.	Oct. 10	
*Dolli-Effe		Scarlet Or.	Tali	Oct. 10	
Hunisman		Burnt Orange	Med.	Oct. 10	
Carnival		Carmine Red	Tall	Oct. 10	
Carmine Queen		Red Bronze	Med.	Oct. 10	
Northwestern		Bronze	Med.	Oct. 10	
*Indiana		Dark Red	Med.	Oct. 12	
Admiral		Bronze	Med.	Oct. 12	
*Purdue (H)		Crimson Red	Med.	Oct. 12	
Crusader		Red	Med.	Oct. 15	
*Radiance		Apricot Gold	Tall	Oct. 14	
*James Stewart		Bronze	Med.	Oct. 15	
*Majestic		Rose Red	Tall	Oct. 15	
Red Enterprise		Bright Red	Med.	Oct. 15	
Wisconsin		Apricot Br.	Med.	Oct. 15	
		Scarlet Red	Tall	Oct. 15	
Rajah Helma		Rich Red	Med.	Oct. 15	
P	INK	and LAV	ENDER		
Wenonah	. (P)	Soft Lavender	Med.	Aug. 24	
Gladness		China Rose	Short	Aug. 28	
Cecil Beed	. (D)	Deep Lav.	Med.	Sept. 1	
Sal. Precose		Salmon Pk.	Short	Sept. 1	
Amelia		Lav. Pink	Short	Sept. 5	
Rosa		Rose Pink	Med.	Sept. 5	
Dean Kay		Shell Pink	Short	Sept. 5	
Purple Star		Bril. Purple	Med.	Sept. 5	
*Joan Helen		Dk. Purple	Med.	Sept. 10	
Nye's Favorite		Lavender	Med.	Sept. 10	
*Orchid Helen		Orchid Lav.	Med.	Sept. 10	
Lorenzo		Dk. Purple	Med.	Sept. 15	
		Dk. Purple	Med.	Sept. 15	
Royal Robe		Rose Pink	Med.	Sept. 15	
Royal Robe Tensleep		Brt. Purple	Med.	Sept. 15	
Tensleep	. (D)		Med.	Sept. 15	
		Brt. Purple		F1 00	
Tensleep Chippewa Violet	. (D)	Soft Purple	Med.	Sept. 20	
Tensleep	. (D) . (Sp)		Med. Med.	Sept. 20	
Tensleep	. (D) . (Sp) (D)	Soft Purple Salmon Pk. Rose Pink	Med. Med. Short	Sept. 20 Sept. 20	
Tensleep	. (D) . (Sp) (D) (C)	Soft Purple Salmon Pk.	Med. Med. Short Med.	Sept. 20 Sept. 20 Sept. 20	
Tensleep	. (D) . (Sp) (D) (C)	Soft Purple Salmon Pk. Rose Pink	Med. Med. Short	Sept. 20 Sept. 20	





Garden Varieties

VARIETY	SIZE AND TYPE	COLOR	HEIGHT	MATURES	PRIC
PINK	and	LAVENDE	R (Con	t'd)	
Alert	(LD)	Dark Purple	Med.	Sept. 20	S-
Dianche Liiwiller	(LP)	Lav. Pink	Med.	Sept. 23	S-
Pink Quill		Shell Pink	Med.	Sept. 25	S-
Olive Longland	(D)	Salmon Pink	Med.	Sept. 25	S-
Evangeline	(LD)	Flesh Pink	Tall	Sept. 25	S-
Jeweltone Lady's Choice	(P)	Rose Pink	Short	Sept. 25	5-
Reflection	(LD)	Ivory Pink	Med.	Sept. 25	S-
Petrisian Rose	(D)	Rosy Lav.	Med.	Sept. 25	S-
Cecelia	(P)	Lav. Rose	Med.	Sept. 25	S-
Imp. Early Wonder	(D)	Purple	Short	Sept. 25	S-
Spellbound	(P)	Lav. Pink	Med.	Sept. 25	S-
Capt. J. Smith	(D)	Bril. Lavender	Med.	Sept. 25	S-
Evelyn Devaney	(C)	Lav. Pink	Short	Sept. 25	S-
Purple Cushion	(D) (C)	Shell Pink	Med.	Sept. 25	S-
Major Cushion		Deep Purple	Med.	Sept. 25	5-
Coquette	(D)	Lavender	Short	Sept. 25	S-
Loveliness	(C)	Rosy Pink	Short	Sept. 25	5-
Edna Rowley	(Sp)	Carmine Pink	Med.	Sept. 26	P
Mary Harrison	(B)	Lav. Pink	Med.	Sept. 26	S-
Tuneful	(D)	Purple	Med.	Sept. 26	P
Purple Heart	(P)	Rose Pink	Tall	Sept. 28	5-
Rosifa	(D)	Purple	Med.	Sept. 28	P
Joyous	(B)	Lt. Lavender	Med.	Sept. 28	S-
Beffy	(C)	Lavender	Short	Sept. 28	S-
Twinkle	(D)	Pink Rose	Tall	Sept. 28	S-
Pat. Lehman	(C)	Deep Rose	Med.	Sept. 28	5-
Stylish	(D)	Peach Pink	Tall	Sept. 28	S
Aristocrat (H)	(Cactus)	Old Rose	Med.	Sept. 28	S-:
Champagne	(LD)	Deep Wine	Med.	Sept. 28	S
Artist's Delight	(D)	Shell Pink	Tall	Sept. 28	P
Lady Fair	(D)	Coral Pink	Med.	Sept. 29	S-:
Troubadour	(Cactus)	Orch. Pink	Med.	Oct. 1	P
Tiffany Rose	(D) (S)	Rose Crimson	Med.	Oct. 1	S
Old Lavender	(LD)	Deep Rose	Med.	Oct. 1	S-:
Sonny		Brt. Lavender	Med.	Oct. 1	S-:
Helen Bogue	(P) (LD)	Salmon Pink	Med.	Oct. 1	S-(
Mayflower		Rose Purple	Tali	Oct. 1	S-:
Vischiaf	(P) (S)	Luminous Pk.	Med.	Oct. 1	S-4
Mischief Charm Spoon	(Sp)	Purple	Short	Oct. 1	S-:
Alex Cummings	(D)	Rose	Med.	Oct. 1	S-4
Northern Queen	(LD)	Rose Pink	Tall	Oct. 3	S-:
Petrisian Pink	(D)	Rose Pink	Med.	Oct. 5	S-4
avender Lady	(D)	Light Pink	Med.	Oct. 5	S-5
Dream Girl	(P)	Lavender	Tali	Oct. 5	S-4
ourtier	(P) (D)	Lt. Lavender	Med.	Oct. 10	S-3
ime	(P)	Lavender	Med.	Oct. 10	S-4
Orchid Spoon	(Sp)	Deep Lav.	Med.	Oct. 10	S-4
Rose Spoon	(Sp)	Orchid	Med.	Oct. 10	S-6
assie	(LD)	Rose Pink	Med.	Oct. 10	S-5
Masquerade	(ED)	Deep Pink	Med.	Oct. 10	S-4
loybringer	(D)	Lavender	Med.	Oct. 10	S-5
lllegro	(C)	Lav. Rose	Short	Oct. 10	S-2
uchsia Fairy		Shrimp Pink	Med.	Oct. 12	S-4
upid	(D) (D)	Light Pink	Short	Oct. 14	S-2
ewell	(B)	Pink	Med.	Oct. 15	S-1
Interprise	(B) (P)	Lavender	Med.	Oct. 15	5-1
t. Pink Enterprise	(P) (P)	Amaranth Rose	Tall	Oct. 15	5-1
Elizabeth Hood		Light Pink	Tall	Oct. 15	5-2
	(D)	Lt. Lavender	Med.	Oct. 15	S-1

Garden Varieties

COLLECTION PRICES PER 100

300 - 450

500 - 950

1000 Up

\$6.00

\$5.75

\$5.50

GARDEN VARIETY COLLECTIONS

For growers who are not familiar with Garden Varieties, but who wish a well balanced assortment, we offer the following collections which include the better varieties for each specific purpose.

COLLECTION No. 1

Taller varieties for cut flowers

COLLECTION No. 2 Varieties for bedding or borders

COLLECTION No. 3

50% for Cut Flowers 50% for Bedding or Borders

COLLECTION No. 4

Varieties suitable for Easter, Mother's Day or Memorial Day pots

COLLECTION No. 5

Cushion varieties only

PRICE TABLE

(All prices per 100 cuttings. Fifty cuttings are priced per 50.)

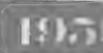
Class	Price 50 Only	100- 250	300- 450	500- 950	1000 Up	Class	Price 50 Only	100- 250	300- 450	500- 950	1000 Up
S-9	3.13	6.00	5.75	5.50	5.25	S-3	4.13	8.00	7.75	7.50	7.25
S-8	3.38	6.50	6.25	6.00	5.75	S-2	4.25	8.25	8.00	7.75	7.50
S-7	3.63	7.00	6.75	6.50	6.25	S-1	4.38	8.50	8.25	8.00	7.75
S-6	3.75	7.25	7.00	6.75	6.50	P	4.50	8.75	8.50	8.25	8.00
S-5	3.88	7.50	7.25	7.00	6.75	P-1	5.50	9.75	9.50	9.25	9.00
S-4	4.00	7.75	7.50	7.25	7.00						

EARNED CREDIT — The above prices are subject to an earned credit discount which is given to those accounts who qualify on the basis of frequency of shipment and total number of cuttings purchased during the year.

GROUP PRICING (advance orders) - To encourage the placing of advance orders for a series of shipments, we offer the lowest price in accordance with the quantity ordered on any particular variety. For example, a customer who orders 100 cuttings of a variety, 10 weekly shipments would receive the 1000 price on each shipment of that variety.

PRICES EFFECTIVE JANUARY 5, 1959

(Prices subject to change without notice)



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INSECTICIDES Jungicides & Junigants

ARAMITE 15W	KELTHANE WETTABLE 18.5 4-lb. bag \$ 5.80 Case (12, 4-lb. bags) 52.80
CHLOROBENZILATE 25W4-lb. bag \$ 3.20 Case (12, 4-lb. bags) 52.80	MALATHION 4 lb. 25% wettable powder
DDT—50 WETTABLE4 lbs. 2.00 48 lbs. (12, 4-lb. bags) 20.00	MILDEX3-lb. bag 6.70
ENDRIN 1.6l gal. 11.90	NICOTINE FUMIGATORS (Fulex) —Gives efficient results on Greenhouse Aphids and most
FERBAM (FERMATE)	Thrips. Contains 14% nicoteen (alkaloid). 10,000 cu. ft. size (carton of 12)
FULEX	OPTOX (10% DDT)gal. 12.00
Parathion Fumigators	ORTHOCIDE 50W (Captan)Carton (10, 5-lb.) 42.50
For Red Spiders, Aphids and Thrips on florist crops. Carton (24 cans)	5 lbs. 4.75
2,000 cu. ft\$11.50 10,000 cu. ft\$17.00 5,000 cu. ft 14.50 20,000 cu. ft 26.00	PLANTFUME 103 5,000 cu. ft. carton—36 12.00 20,000 cu. ft. carton—12 12.00
Aphid-Smoke Fumigators	PARATHION SPRAY (15% Wettable)4-lb. bag 2.70
For Aphids and Adult White Flies on florist crops. Carton (24 cans)	PARZATE Powder3-lb. bag 3.30
2,000 cu. ft	Case (36 lbs.) 36.00
5,000 cu. ft 14.00 20,000 cu. ft 25.00	P-40
Spider-Mite Fumigators	50 lbs. 37.50 100 lbs. 70.00
For Red Spiders, including some Parathion-resistant strains on carnations, chrysanthemums and snap-	SODIUM SELENATE (Pure)
dragons.	SNAROL6 lb. 2.00
Carton (24 cans)	50 lbs. 9.75
2,000 cu. ft	SNAILICIDE
0,000	TERRACHLOR 75WP—Controls rhizoctonia stem
GRASSELI SPREADER STICKER 1 gal. 7.95	rot by inhibiting growth of fungus
KELTHANE EMULSION 18.5 gal. 11.00	333 (#5, 1 see a sign,
Case (4-1 gal.), per gal. 10.80	VAPATONE XXl-gal. can 12.50

We can supply you with any insecticide or fungicide not listed above. Prices subject to change without notice.



For your bulb and foliage plant requirements see your Glockher representative. Consult him on your Flower Seed and Carnation plants and send for your Glockher Carnation and Flower Seed Manuals. They are available upon request.



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1959	FEB. 14	MARCH 29	MAY 10	MAY 30	OCT. 17	NOV. 26	DEC. 25
1960	FEB. 14	APRIL 17	MAY 8	MAY 30	OCT. 15	NOV. 24	DEC. 25

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